



EDUCATION THAT WORKS  
**ForsythTech**  
COMMUNITY COLLEGE

**2000 - 2001**







# **Forsyth Technical Community College**

## **2000-2001 Catalog**

Forsyth Technical Community College issues this catalog to furnish prospective students and other interested people with information about the College and its programs. This catalog supersedes all previous catalogs, and information about programs, fees, and regulations contained in earlier issues is now out-of-date. The provisions of this publication are not to be regarded as an irrevocable contract between the student and Forsyth Technical Community College. The college reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedures as and when deemed necessary. Every effort will be made to minimize the inconvenience such changes might create for students.

### **Campus Locations**

(All mail should be sent to the Main Campus address.)

Main Campus  
2100 Silas Creek Parkway  
Winston-Salem, NC 27103-5197  
(336) 723-0371

West Campus  
1300 Bolton Street  
Winston-Salem  
(336) 723-0371

### **Off-Campus Centers**

Fourth Street Center  
Chamber Building  
601 West Fourth Street  
Winston-Salem  
(336) 631-1320

Fifth Street Center  
Main Library  
660 West Fifth Street  
Winston-Salem  
(336) 631-1325

Grady P. Swisher Center  
1251 Dudley Products Drive  
Kernersville  
(336) 993-6780

Mazie S. Woodruff Center  
4905 Lansing Drive  
Winston-Salem  
(336) 744-5159

Stokes County Office  
9th & Main Street  
Walnut Cove  
(336) 591-3464



# Academic Calendar

## *FALL SEMESTER, 2000*

Monday, July 10 .....	Registration Begins
Tuesday and Wednesday, August 15-16.....	Late Registration (FWDs)
Monday, August 21.....	First Day of Classes
Tuesday, August 22 .....	Last Day to Add Classes
Monday, September 4 .....	Labor Day Holiday
Monday and Tuesday, October 9-10.....	Fall Break (FWD)
Wednesday, October 18 .....	Last Day to Drop Without Penalty
Wednesday, November 22 .....	Faculty Work Day (no classes)
Thursday and Friday, November 23-24.....	Thanksgiving Holidays
Monday, December 18.....	Last Day of Classes
Tuesday, December 19.....	Grade Posting (FWD)
Wednesday and Thursday, December 20-21 .....	Faculty Work Days (no classes)
Friday, December 22 through Monday, January 1 .....	Christmas and New Years Holiday

## *SPRING SEMESTER, 2001*

Tuesday, November 28.....	Registration Begins
Thursday, January 4 .....	Late Registration (FWD)
Friday, January 5 .....	Faculty Work Day (no classes)
Monday, January 8.....	First Day of Classes
Tuesday, January 9 .....	Last Day to Add Classes
Monday, January 15 .....	Martin Luther King Holiday
Monday - Wednesday, March 5-7 .....	Spring Break (FWD)
Monday, March 12.....	Last Day to Drop Without Penalty
Thursday, April 12 .....	Faculty Work Day (no classes)
Friday, April 13 .....	Easter Holiday
Monday, May 7.....	Last Day of Classes
Tuesday, May 8.....	Grade Posting (FWD)
Wednesday, May 9.....	Faculty Work Day (no classes)
Thursday, May 10.....	Graduation (FWD)
Friday, May 11 .....	Faculty Work Day (no classes)

## *SUMMER TERM, 2001*

Monday, April 23.....	Registration Begins
Monday, May 14.....	Late Registration
Tuesday, May 15.....	First Day of Classes
Wednesday, May 16.....	Last Day to Add Classes
Monday, May 28.....	Memorial Day Holiday
Tuesday, June 19.....	Last Day to Drop Without Penalty
Wednesday, July 4.....	Independence Day Holiday
Wednesday, July 25.....	Last Day of Classes
Thursday, July 26 .....	Grade Posting
Friday, July 27 .....	Graduation

Dates are subject to change without notice. FWD - Faculty Work Days

# A Message from the President

At Forsyth Technical Community College, **your success is our goal**. We are proud of the quality educational programs and services that we offer to you. Our small classes, professional faculty, and state-of-the-art equipment combine to provide an educational experience that will prepare you well for the challenges of the 21st century.

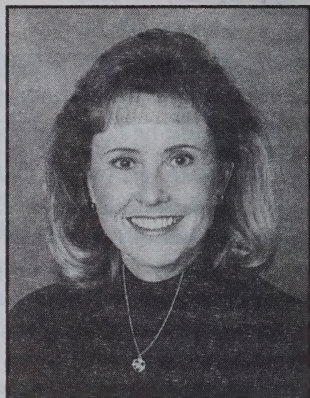
Our students are our most valuable resource at Forsyth Technical Community College. Whether you are seeking a technical degree, planning to transfer to a four-year college or university, looking for vocational training, updating your current skills, or developing new capabilities, the faculty and staff are here to meet your needs.

With a strong articulation agreement with the University of North Carolina system, we are positioned to assure a smooth transition from high school to the community college system and then on to a four-year college or university. Flexible scheduling and distance learning help us to meet the diverse educational needs of students who are balancing home, work, and family responsibilities while continuing their education. Technical training, health careers, business and engineering technologies all offer the potential for excellent employment opportunities.

In addition to the Main Campus on Silas Creek Parkway, Forsyth Technical Community College opened two new state-of-the-art Centers in 1998. The Mazie S. Woodruff Center is located on Carver Road and Lansing Drive, and the Grady P. Swisher Center is located in Kernersville. Both Centers provide additional options to serve our expanding student population. The college also has a West Campus on Bolton Street, a center on 4th Street, a center in the 5th Street public library, a Stokes County office in Walnut Cove, and over 40 other locations throughout Forsyth and Stokes counties to provide convenient access to educational programs.

We certainly hope you will choose to enroll at Forsyth Technical Community College. We believe you will have an enjoyable, challenging, and rewarding experience. I urge you to take full advantage of the best educational bargain in Winston-Salem and North Carolina. The College is committed to providing quality educational experiences at a reasonable cost. Our open-door policy and our helpful admissions counselors will assure you a smooth entry into the college.

Please feel free to contact any member of the college community to answer questions and provide you with assistance. I look forward to seeing you on the Forsyth Technical Community College campus where **your success is our goal!**



Desna L. Wallin, Ed.D., President



# Foreword

## Mission

Forsyth Tech is a comprehensive community college offering lifelong learning and educational opportunities to improve the quality of life within the community and prepare globally competent citizens.

As an open-door college, Forsyth Tech values and respects the diversity and abilities of all learners. The college provides learning opportunities through workforce preparedness training, college transfer programs, professional and personal development, and services to business, industry, and community agencies.

## Role and Scope

Forsyth Tech is dedicated to providing learning opportunities through associate degree, diploma, and certificate programs, as well as continuing education programs and services.

The role of Forsyth Tech is to provide for its students:

- ▲ effective teaching and learning through a full range of instructional methods, including distance education, and academic support services.
- ▲ adult literacy courses, programs, and services.
- ▲ education and training for employment in vocational and technical fields.
- ▲ professional and personal development through credit and non-credit courses.
- ▲ a seamless transition from high school through the community college to four-year institutions.
- ▲ training and retraining in response to the changing needs of business, industry, and the community.

## Quality Principles

The college operates with commitment to two quality principles:

1. Constancy of purpose - fulfilling our mission.
2. Customer service and satisfaction.

## Vision

Forsyth Technical Community College will be a premiere community college in the Southeast, known for its quality programs and services to business, industry, and individuals. It will be a leader in technological innovations, international education, and lifelong learning.

## Equal Opportunity Policy

Forsyth Technical Community College is committed to the principle of equal opportunity. It is an Affirmative Action, Equal Opportunity, ADA, Section 504 Institution and does not discriminate on the basis of race, sex, color, age, religion, national origin, disability, or political affiliation with regard to its students, employees, or applicants for admission or employment.

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# General Information

## Governance

Forsyth Technical Community College (FTCC) is one of 59 institutions operating in the North Carolina Community College System, a statewide organization of public, two-year, postsecondary educational institutions. The statutes of the State of North Carolina provide for the organization and administration of a community college system under the direction of the State Board of Community Colleges. This 20-member board has full authority to adopt all policies, regulations, and standards it deems necessary for the operation of the system. The Governor and the General Assembly appoint members of the State Board. The State Board has three major functions: equitable distribution of funds and fiscal accountability; establishing and maintaining state priorities; and educational program approval and accountability.

Forsyth Technical Community College is governed by a 13-member Board of Trustees— four appointed by the Governor of North Carolina, four appointed by the Winston-Salem/Forsyth County Board of Education, four appointed by the Forsyth County Board of Commissioners, and the Student Government Association President. Trustees serve a four-year term and set local policy for the College.

## Accreditation

Forsyth Technical Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4907, Telephone Number 404-679-4501) to

award associate degrees, diplomas, and certificates.

The College is a member in good standing of the American Association of Community Colleges.

## Specialized Program Accrediting and Approving Agencies

- ◆ North Carolina Board of Nursing
- ◆ Commission on Accreditation of Allied Health Education Programs (CAAHEP)
- ◆ Joint Review Committee on Education in Radiologic Technology (JRCERT)  
20 North Wacker Drive, Suite 900  
Chicago, IL 60606-2901  
(312) 704-5300 mail@jrcert.org
- ◆ Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT)
- ◆ Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET)

## History

Forsyth Technical Community College traces its origins back to a set of ideas in the booming late 1950's: that industry needed education for training to keep the competitive edge and that students needed an opportunity to receive technical knowledge and training. In 1958 a Winston-Salem/Forsyth County Chamber of Commerce study began the process which resulted in bond issues, buildings and, finally, classes in the fall of 1960. The areas of Automotive Mechanics, Machine Shop, Electronics, and Practical Nursing were among the first course offerings at the new Winston-Salem/Forsyth County Industrial Education Center, FTCC's first name.

The early 1960's were a time of increasing growth for the Industrial Education Center, with a third building added in 1963. Nineteen sixty-three also witnessed the establishment of the North Carolina Department of Community Colleges and, with that, the Winston-Salem/Forsyth County Industrial Education Center passed under the new Community College System.

With the new year, 1964, came a new name--Forsyth Technical Institute. The level of contact and commitment to the community grew steadily under the new banner, with the addition of the General Adult Enrichment Courses in 1964-65. Adult Basic Education was begun at the Institute in the summer of 1965. Quality of education and training continued to be benchmarks for Forsyth Technical Institute throughout the late 1960's. While much of the nation was caught in campus turmoil, FTI worked on producing well qualified graduates from all of its programs and offerings.

The 1970's brought more change and expansion for Forsyth Technical Institute. The Allied Health Curriculum was created in the fall and winter of 1971-72, offering courses in three areas: Nuclear Medicine, Radiological Technology, and Respiratory Therapy. A two-year Nursing Degree Program was added in the fall of 1972. A Police Science Curriculum--today called the Criminal Justice Curriculum (CJC)--was added in 1971 as well. In 1974 the College Foundation was created to work with Alumni to raise funds for buildings, programs, scholarships and more.

As the nation shifted gears from the 1970's to the 1980's, expansion again moved to the fore with the acquisition of the Dalton Junior High School site, which became the Institute's West Campus site in Winston-Salem. Ground was broken for a technology building--

Hauser Hall--on the main Silas Creek campus site. Nineteen eighty-five saw the first of two more name changes for Forsyth Technical Institute, with the name changing to Forsyth Technical College, and then, in 1987, a further change to its current name, Forsyth Technical Community College. Becoming a community college allowed for the addition of the College Transfer Program, serving an even wider portion of the community in 1989.

Expansion and growth have always been an essential part of the FTCC picture, even from its earliest days. As the College entered the 1990's, new buildings were added. Bob Greene Hall, with classrooms, laboratories, and the Learning Center, was dedicated in 1991. The Allman Center, in 1992, provided both classroom and administrative space for the increasing growth FTCC was experiencing. In 1996 the Corporate and Continuing Education Division added two training sites in downtown Winston-Salem to better serve the business and industry sectors.

The late 1990's have seen the rate of change, growth, and expansion continue with even greater vigor. In 1998 two new off-campus centers were added: the Mazie Woodruff Center in Northeast Winston-Salem and the Grady Swisher Center in Kernersville. Tremendous growth has FTCC looking, just as it did in 1960, to the future with confidence and optimism. Yet, despite all the changes that four decades have brought to "the technical school on Silas Creek," the ideals remain much the same: to provide quality education and training for the citizens of North Carolina so that they might live better and more fulfilled lives.



## **Forsyth Technical Community College Foundation**

The Forsyth Technical Community College Foundation was established in 1974 to provide additional financial support for the College through private donations. Reactivated in 1997, the Foundation supports student scholarships, new technology, and faculty and staff professional development.

Gifts to the Foundation are deductible on federal and state income tax reports, both individual and corporate, up to applicable laws. All gifts, large or small, are appreciated and may be designated for specific programs and projects.

## **Advisory Committees**

Most curriculums have their own advisory committee composed of representatives of local businesses, industries, educational and community organizations. The advisory committees provide contact between Forsyth Tech and the community to maintain current and relevant programs of instruction to meet the needs of the community.

# Programs Offered

## DEGREE CURRICULUMS

### Business Technologies

- Accounting ♦
- Business Administration ♦
- Business Administration/Banking & Finance ♦
- Business Administration/International Business ♦♦
- Computer Programming ♦
- Information Systems ♦
- Information Systems/Networking Administration & Support ♦
- Internet Technologies ♦
- Medical Assisting ①
- Office Systems Technology ♦
- Paralegal Technology ♦

### Arts & Sciences

- Associate in Arts ♦
- AA Pre-Major Business Administration ♦
- AA Pre-Major Criminal Justice ♦
- AA Pre-Major Elementary Education ♦
- AA Pre-Major English ♦
- AA Pre-Major History ♦
- AA Pre-Major Nursing ♦
- AA Pre-Major Physical Education ♦
- AA Pre-Major Psychology ♦
- AA Pre-Major Social Work ♦
- AA Pre-Major Sociology ♦
- Associate in Science ♦
- AS Pre-Major Biology & Biology Education ♦
- AS Pre-Major Chemistry & Chemistry Education ♦
- AS Pre-Major Engineering ♦
- AS Pre-Major Mathematics ♦
- Criminal Justice Technology ♦
- Criminal Justice Technology/Latent Evidence Technology ♦
- Early Childhood Associate ♦
- Fire Protection Technology ♦♦
- General Occupational Technology ♦
- Human Services ♦♦
- Speech/Language Pathology Assistant ①

### Health Technologies

- Associate Degree Nursing ①②
- Cardiovascular Sonography ①♦
- Health Information Technology ★
- Emergency Medical Science ♦♦

Emergency Medical Science/Bridging Program ♦♦

Massage Therapy ♦

Medical Laboratory Technology ★①

Medical Sonography ①

Nuclear Medicine Technology ①

Occupational Therapy Assistant ★②

Physical Therapist Assistant ★②

Radiation Therapy Technology ①

Radiation Therapy Technology /Advanced Placement ①

Radiography ①

Respiratory Care ①

### Engineering Technologies

- Architectural Technology
- Automation/Robotics Technology
- Automotive Systems Technology/  
Race Car Performance
- Computer Engineering Technology
- Electronics Engineering Technology ♦
- Film and Video Production Technology ★
- Graphic Arts & Imaging Technology
- Horticulture Technology
- Machining Technology
- Machining Technology/Tool, Die, and  
Mold Making ♦♦
- Manufacturing Engineering Technology
- Mechanical Engineering Technology/  
Drafting & Design

## DIPLOMA CURRICULUMS

- Accounting ♦
- Air Conditioning, Heating &  
Refrigeration Technology ♦①
- Autobody Repair ①
- Automotive Systems Technology ♦
- Cardiovascular/Vascular Interventional  
Technology ①
- Cardiovascular Sonography ①♦
- Carpentry ①
- Computed Tomography & Magnetic  
Resonance Imaging Tech. ③
- Computer Programming ♦
- Electrical/Electronics Technology ①
- Electronic Servicing Technology ①
- Funeral Service Education ●★
- General Occupational Technology ♦
- Graphic Arts & Imaging Technology ①
- Heavy Equip. & Transport Technology  
(Diesel) ①
- Information Systems ♦



Information Systems  
 /Desktop Publishing ♦  
 Information Systems/Network  
 Adm. & Supp./LAN Tech. ♦  
 Information Systems/Network  
 Adm. & Supp./WAN Tech. ♦  
 Machining Technology ♦①  
 Medical Transcription ①  
 Office Systems Technology ♦  
 Plumbing ①  
 Practical Nursing ①  
 RV Maintenance &  
 Repair Technology ♦①  
 Welding Technology ♦

## CERTIFICATE CURRICULUMS

Architectural CAD/Digital Imaging ♦  
 Autobody Repair ♦  
 Business Administration/Customer  
 Service Concentration ♦  
 Carpentry  
 Computed Tomography ③  
 Computer Programming ♦  
 Early Childhood  
 Early Childhood Administration ♦  
 Early Childhood - School Age  
 Electrical/Electronics Technology  
 Electronics Engineering Technology ♦  
 Health Care Technology ①  
 Heavy Equipment and Transport  
 Technology (Diesel) ♦  
 Information Systems ♦  
 Information Systems/Helpdesk ♦  
 Information Systems/Cisco Routing  
 and Networking ♦  
 Internet Technology ♦  
 Licensed Practical Nurse Refresher  
 Magnetic Resonance Imaging ②  
 Manufacturing Engineering Technology  
 Office Systems Technology ♦  
 Paralegal - Personal Injury  
 Paralegal - Real Property  
 Plumbing  
 Real Estate ♦  
 Real Estate Appraisal ●①  
 RV Maintenance & Repair Technology ♦  
 Welding Technology ♦

## Corporate and Continuing Education Programs

### EDUCATIONAL SERVICES

Assessment for Basic Employable Skills  
 Basic Skills Assessments  
 Customized Spanish  
 Customized Training  
 DACUM  
 Job Link Employability Lab  
 Job Task Analysis  
 Training Needs Assessments

### PROGRAM OFFERINGS

Adult Basic Skills  
 Adult High School Diploma  
 Adult Night Learning Center  
 Apprenticeship  
 Community Service Programs  
 Compensatory Education  
 Computer Technology  
 Emergency Services  
 Employee Health & Safety  
 Employee Organizational  
 Effectiveness  
 English as a Second Language (ESL)  
 Focused Industrial Training  
 General Educational Development (GED)  
 in English and Español  
 Health Occupations  
 Human Resource Development  
 Industrial Technology  
 Language & Cultures  
 Licensing & Certificate  
 New and Expanding Industry  
 Preemployment Training  
 Small Business Center

- ♦ Day & Evening Programs
  - Evening Only Programs
  - ★ Consortium Curriculums
  - ❖ This curriculum will be offered pending State Board Approval.
  - ① Begins Fall Semester
  - ② Begins Spring Semester
  - ③ Last 1/2 of Summer Term
- Unless specified, students may begin programs during any semester.*

# Admission

## General Information

Forsyth Tech is an Equal Opportunity Institution and operates under an open-door admissions policy. Admission to the college's curriculum programs is open to all students with a high school diploma or its equivalent. High school students and home-schooled applicants 16 years of age or older may be admitted into credit and continuing education courses in accordance with the dual enrollment policies adopted by the State of North Carolina.

Forsyth Tech offers programs of study leading to a degree, diploma, or certificate in areas of business, health, general education, and engineering technologies. In addition, the college offers the Associate in Arts and Associate in Science college transfer degrees, including fourteen pre-major courses of study.

The admission process requires the initial application, transcripts of secondary and postsecondary work, and placement tests. Health examinations, reference forms, and other documents may also be required to participate in clinical or practical training courses in certain programs. All admission documents become the property of the college and are not to be copied for release to students or third parties.

Admission to the college does not imply immediate admission to the curriculum desired by the applicant. Placement in certain programs is limited, and admission to a specific program of study is based on guidelines developed to ensure the student's chances of success in the program. Through counseling conferences held before admission, applicants may obtain assistance in setting realistic goals. Counselors use applicants' educa-

tional achievements and placement test results to assess their potential for success in specific instructional programs. When evaluations of applicants' test scores and high school records indicate their lack of readiness to enter a specific course, applicants may be required to enroll in a Developmental Education course to prepare for admission to their desired curriculum.

Forsyth Tech reserves the right to refuse admission to any student whose enrollment or continued presence is considered to create a risk for campus safety or disruption of the educational process.

Applicants should submit a completed application to the Admissions Office for the semester they plan to enroll. Although potential students may apply at any time, applicants are encouraged to complete the admission process as early as possible. This allows adequate time for processing and satisfying admissions requirements for programs of study. Write or phone the Admissions Office to obtain application forms and detailed information about instructional programs or to set up an appointment to talk with a counselor.

Admissions Office  
Forsyth Technical Community College  
2100 Silas Creek Parkway  
Winston-Salem, NC 27103-5197  
(336) 723-0371, Ext. 7253 or 7256

An application is also available online.  
[www.forsyth.tec.nc.us](http://www.forsyth.tec.nc.us)  
Email: [infoftcc@forsyth.cc.nc.us](mailto:infoftcc@forsyth.cc.nc.us)

Please read the Corporate and Continuing Education section of this catalog to learn about admissions requirements for non-curriculum programs.



## Admissions Procedures

Applicants for admission to any degree, diploma, or certificate curriculum should:

1. Submit a completed Application for Admission form to the Admissions Office.
2. Arrange to take the Computerized Placement Tests (CPTs). Scholastic Aptitude Test (SAT) scores may be substituted for the CPTs. American College Test (ACT) scores may also be substituted for programs other than health.
3. Request that a transcript of all high school and post-high school academic work be sent directly to the Admissions Office.
4. Submit recommendations, if requested.
5. Report for an interview, if requested, on the date scheduled by the Admissions Office. At this interview, test scores and previous academic records will be evaluated and the applicant will be advised as to eligibility for admission to his/her desired curriculum. If an interview is not necessary, the student will be notified of his/her status in writing.
6. Submit a completed Student Medical History form, if requested.
7. Participate in an orientation program prior to entry into a curriculum.

Students who are currently enrolled and wish to be considered for another curriculum must update their application in the Admissions Office.

## Transcripts/Academic Assessment

Admissions requires a transcript from a high school, an adult high school diploma program, or a general education equivalency certificate (GED) program. Applicants who have earned the high

school equivalency diploma in North Carolina should ask to have a transcript certifying high school equivalency sent to the Admissions Office. Write:

State GED Administrator  
Department of Community Colleges  
200 W. Jones Street  
Raleigh, North Carolina 27603-1337

Students who have completed an associate's or bachelor's degree may substitute their official college transcript showing the graduation date, in place of their high school transcript. Students desiring transfer credit must request official transcripts from postsecondary institutions they have attended.

Applicants for most programs will be required to submit scores on either the Scholastic Aptitude Test (SAT), the American College Test (ACT), or the Computerized Placement Tests (CPTs). Information concerning the SAT/ACT may be obtained from local high school counselors or the Counseling Center in Student Development Services. Information on and registration for the CPTs, given at the college, is available at the Information Desk in the Allman Center lobby. To receive practice tests, worksheets, and tips on taking the CPTs, contact the Forsyth Tech Learning Center.

Test results are used in helping students assess their aptitudes and achievements in relation to their interests and desires. This information provides a basis for placing students in appropriate courses.

## Admissions Requirements

The basic requirement for admission to any curriculum is a high school diploma or its equivalent. Applicants who are not

high school graduates may arrange to complete high school in the Corporate and Continuing Education program or to take the high school equivalency examination (GED).

Some programs have limited capacity and prospective students are encouraged to apply early. Some of these limited-enrollment programs may have waiting lists for courses in the curriculum. Students on the waiting list may take the general education courses required in the program, subject to an advisor's approval.

## **Associate Degree Curriculums**

These curriculums require students to have strong backgrounds in reading comprehension, writing, and mathematics.

All health curriculums use a selective admission process. Students meeting minimum requirements are assessed on a rating scale that ranks previous course grades in English, biology, and algebra, and completion of other health professions training programs. Highest-ranking students will be admitted first.

Please note that certain health technology curriculums must admit applicants under state statutes of the licensure agencies. The North Carolina Board of Nursing has state statutes that identify reasons for prohibiting licensure for Associate Degree Nursing and Practical Nursing graduates. The reasons are presented during the admission process.

All students in Nuclear Medicine Technology, Radiography, and Radiation Therapy Technology come under the radiation exposure regulations of the state and federal governments (Radiation Safety Hazard Regulation). Any student

who receives exposure in excess of permissible limits as defined by the regulations will be advised of the possible harmful effects and may be dropped from the curriculum. The regulations pertaining to students below the age of 18 are more stringent than those for the older student.

## **Diploma and Certificate Curriculums**

For non-high school graduates with special needs, exceptions to the required diploma may be made under certain circumstances in every curriculum except Practical Nursing. Applicants may be admitted into some curriculums on the basis of high school records; however, scores on the SAT or the CPTs may be required.

In many curriculum areas, the courses earned in completing the certificate program count toward the diploma and/or the associate degree. Questions concerning the need for testing or the application of credits should be directed to the Admissions Office.

## **Transfer Credit**

Applicants who have attended other postsecondary institutions may transfer credits in courses comparable in content, objective, quality, and credit hours to those offered at Forsyth Tech. When granting transfer credit is in question, the student may be asked for supporting documentation such as a course description or course syllabus.

For accepted students, Forsyth Tech evaluates transfer credit for equivalent courses with the grade of C or better from member institutions of the North Carolina Community College System and other postsecondary institutions accredited



ed by a regional accrediting association. Courses taken on a pass/fail basis will be considered only after receiving (in writing) the requirements necessary to receive a pass grade. The College Transfer technician, the associate dean of Enrollment Management and the appropriate dean in consultation with the appropriate department chair will make the final decision on the transfer of credit for questionable courses. A written evaluation will be sent to the student.

Credits transferred from other schools will be reflected on students’ transcripts as hours earned and will not be used in the computation of grade point averages. A grade of TR will be given to show that the course was transferred from another college.

Many courses with a technical or skill content have time limitations on the acceptance of transfer credit. This includes credits earned at Forsyth Tech as well as at other institutions. Generally, courses in this classification taken more than five years before entry into Forsyth Tech cannot be considered for transfer purposes. The department chairs determine the specific time limitations. In such instances, students may challenge out-of-date courses by proficiency examinations when appropriate and available.

Inquiries concerning transfer credits granted must be made to the College Transfer technician in the Admissions Office during the student’s first semester of enrollment. If a student is dissatisfied with the transfer credit granted, he/she should send a written request for reevaluation to the associate dean of Enrollment Management. After consulting with the division dean, the associate dean of Enrollment Management will notify the student of the final decision on transfer credit to be granted.

# Articulated Courses Advanced Placement (AP)

Secondary school students enrolled in AP courses may receive college credit by taking AP examinations upon completion of the courses and forwarding the results to the Admissions Office for evaluation. (Students should contact their secondary school counselors regarding dates and local test centers.)

<b>WS/FCS</b>	<b>Forsyth Tech</b>
AP English (3 or 4)	ENG 111 Expository Writing
AP English (5)	ENG 112 Argument-Base Res
AP Math AB (3 or better)	MAT 271 Calculus I
AP Math BC (5)	MAT 272 Calculus II
AP Statistics (3 or better)	MAT 155 Statistical Analysis
AP Biology (3 or 4)	BIO 111 General Biology I
AP Biology (5)	BIO 112 General Biology II
AP Chemistry (3 or 4)	CHM 151 General Chemistry I
AP Chemistry (5)	CHM 152 General Chem. II
AP Physics (3 or 4)	PHY 151 College Physics I
AP Physics (5)	PHY 152 College Physics II

# College Transfer and Developmental Courses

A listing of the articulated courses that high school students can receive college credit for are listed below.

<b>WS/FCS</b>	<b>Forsyth Tech</b>
Algebra I (C or better)	MAT 070 Introductory Algebra
Algebra II (C or better)	MAT 080 Intermediate Algebra
Algebra III	
(with proficiency exam)	MAT 121 Alg./Trigonometry
Spanish IV - Honors	SPA 111 Elem. Spanish I
Spanish V - Honors	SPA 112 Elem. Spanish II

# Associate Degree and Diploma Programs

Forsyth Technical Community College has an agreement with the Winston-Salem/Forsyth County Schools that honors the high school courses listed as a substitute for the community college courses listed. These courses are considered “articulated” or equivalent. Articulated courses require students to meet the prerequisites for the high school course and receive a grade of B or better.

They may also need teacher recommendation to receive community college credit. Students are exempt from placement tests in that subject area if they meet the prerequisites.

<b>Associate in Applied Sciences Program</b>		
<b>WS/FCS .....Forsyth Tech</b>		
Technical Math II .....	MAT 115	Mathematical Model
Financial Management ..	BUS 125	Personal Finance
Keyboarding .....	OST 131	Keyboarding
Computer Applications II	CIS 111	Basic PC Literacy
Computer Applications II	CIS 110	Intro. to Computers
Business Law .....	BUS 115	Business Law
Principles of Business ..	BUS 110	Intro to Business
Child Care II .....	EDU 119	Early Childhood Ed
Strategic Marketing ....	MKT 120	Princ. of Marketing
Auto. Tech II (with teacher recommendation) .....	AUT 115	Engine Fundament.
Electronics II (with proficiency exam) .....	ELC 131	DC/AC Analysis
Electronics II (with proficiency exam and teacher recommendation)	ELC 111	Intro to Electricity
Welding II (with proficiency exam) .....	WLD 112	Basic Welding Proc.
Carpentry II (with teacher recommendation) .....	CAR 111	Carpentry I
Technology Studies (with proficiency exam and teacher recommendation)	ARC 111	Intro to Arch. Tech.
Structural Systems .....	ARC 114	Architectural CAD
Cisco Networking I .....	NET 125/126	Routing & Switching
Cisco Networking II .....	NET 225/226	Adv. Routing & Switching

<b>Diploma Program Articulated Courses</b>		
<b>WS/FCS .....Forsyth Tech</b>		
Business Management ..	BUS 230	Sm Business Mgmt.
Commercial Art I .....	GRD 141	Graphics Design
Keyboarding .....	OST 131	Keyboarding
Carpentry II (with teacher recommendation) .....	CAR 111	Carpentry I
Structural Systems .....	DFT 119	Basic CAD
Auto Body Rep II (with teacher recommendation)	AUB 111	Painting & Refin. I
Technical Math I .....	MAT 101	Applied Math I
Honors English IV .....	ENG 101	Applied Comm. I
Welding II (with proficiency exam)	WLD 112	Basic Welding Proc.
Welding II (with teacher recommendation) .....	WLD 110	Cutting Processes

## Tech Prep Programs of Study

Forsyth Technical Community College and Winston-Salem/Forsyth County Schools have entered into the NC School-to-Community College Articulation Agreement. This agreement allows students to outline specific high school programs of study that will grant them advanced standing credit when they enroll in the community college upon high school graduation. There are 27 Tech Prep Programs of Study.

The NC School-to-Community College Articulation Agreement allows students in high school to take academic and vocational courses that will exempt them from certain required courses at the community college level. Forsyth Tech has outlined many Tech Prep Programs of Study in degree and diploma areas for which students can receive advanced standing credit. These articulated courses require the student to meet the prerequisites for the high school course and receive a grade of B or better. If the prerequisites are met, the student is exempted from the placement test in that subject area.

Students need to declare that they are a College/Tech Prep student and work with their high school counselor to register and select the correct sequence of courses in grades 9, 10, 11, and 12. The final high school transcript must indicate successful completion of the correct sequence of courses and receipt of a minimum score of 80 on VoCATS post-assessment.

## Changing Curriculums

When a student changes from one program of study to another within Forsyth Tech, credits attempted, grades, hours earned, and quality points can be transferred for identical courses. A student's initial cumulative GPA in a new curricu-



lum will be computed from the credits forwarded to that curriculum. For courses that are not identical but are comparable, credit will be granted in the same manner as courses transferred from another institution. Such courses will not be used in computing GPA; only hours earned will be transferred, and a grade of CR will be given to show this credit.

## Readmission

Students who have withdrawn in good academic standing should contact the Admissions Office to update their application. If the application for readmission is for a different curriculum, standard admission requirements for new students will apply.

Students who have withdrawn while on academic probation or who have been suspended for academic deficiencies must reapply through the Admissions Office. Approval for readmission to the same curriculum or a different curriculum will be based on the applicant's ability and aptitude, the time elapsed since withdrawing, recommendations of the appropriate division personnel, and the applicant's career objectives. Students granted readmission may have course load restrictions, specific grade requirements, and/or required counseling sessions in order to remain enrolled in the curriculum. When good academic standing has been reestablished, the restriction(s) will be removed.

There are specific additional guidelines for reentry into the health curriculums. These guidelines may be obtained from the Admissions Office.

Former students who reapply for admission may be asked to supply the Admissions Office with transcripts and test scores.

Students who have been suspended for disciplinary reasons or health/safety rea-

sons cannot be readmitted without submitting a request for readmission to the dean of Curriculum Development. The request for readmission is subject to review by the division dean.

## Special Credit Students

Applicants interested in taking only a limited number of courses may, in many curriculum programs, enroll as a special credit student. Special credit students are permitted to register for some credit courses without having to be admitted as a regular curriculum student, providing prerequisites have been met and that such registration does not preempt students enrolled in a degree, diploma, or certificate curriculum. Some credit courses will not be available to special credit students without prior instructional division approval.

For admission to Forsyth Tech, a special credit student needs to be a high school graduate and to complete an application for admission. Special credit students may be asked to take the CPT and will have to furnish official transcripts in order to meet course prerequisite requirements, unless those requirements are waived by the Admissions Office.

While there are no limitations on the number of credit hours a special credit student may earn, students earning 12 or more credit hours will be advised to seek admission into a curriculum. Special credit students who decide to complete a program of study at Forsyth Tech should apply for admission by submitting an updated application. They must meet current admission requirements and, if approved, will be accepted under the plan of study in effect for the program at the time of acceptance. Satisfactory completion of courses as a special credit student does not automatically guarantee admission to a curriculum.

Generally, students are approved for special credit status in the following circumstances:

1. The student wishes to take some relevant credit courses prior to making a decision about applying for a specific curriculum. Students may wish to choose this route in order to reduce their course load once in the curriculum and, thereby, improve chances for success.
2. The student wishes to take specific courses but does not plan to pursue and complete a curriculum at Forsyth Tech.
3. The student has been denied admission into a specific curriculum that has already reached its quota at the time of application, but wishes to complete the related courses.

All policies, rules, and the Code of Conduct apply to special credit students. Special credit students are not eligible for any form of financial aid through Forsyth Tech. Students who are in the Developmental Education program based on placement test scores are not eligible to be considered as special credit students.

## Concurrent Enrollment Students

Junior and senior public high school students and home-schoolers who are at least 16 years of age, may enroll in college courses, tuition free, if official written permission is obtained from their high school principal and guidance counselor. This permission must be forwarded to the Forsyth Tech Admissions Office. Under the Concurrent Enrollment Agreement, students will receive both high school and college credit for completed curriculum coursework. All curriculum work applies to graduation at Forsyth Tech. Courses taken in the College Transfer Associate in Arts or

Associate in Science degree curriculums are transferable to most four-year senior colleges and universities in North Carolina. High school students may also enroll concurrently in continuing education courses.

## International Students

Foreign students with visas are considered for admission through the normal admissions procedures. Students seeking admission with the use of an I-20 need to discuss their admission with the designated admissions staff.

Applicants from outside the United States must produce a translated transcript and all applicable letters and forms and must demonstrate English language proficiency through satisfactory scores on the Test of English as a Foreign Language (TOEFL) and the CPT, SAT, or ACT.





# Academic Advising and Registration

## Academic Advising

Forsyth Tech has an advisor/advisee program that is designed to provide a more personal atmosphere for the student and to increase communication between students and faculty. Each student is assigned a curriculum advisor who provides information related to program content, course content and prerequisite requirements, graduation requirements, and general information. Advisors assist in course planning and scheduling and also make referrals for personal counseling, financial aid counseling, or academic tutoring.

All students are required to meet with an academic advisor prior to registration or during the registration period. The purpose of this meeting is to ensure that course selection is appropriate for the student's educational goals and skill levels. Registration cards are to be signed by the student's advisor.

## Registration

Forsyth Tech operates on the semester system. Fall and Spring semesters run 16 weeks, and these class schedules are mailed to all Forsyth and Stokes County homes. The Summer term runs 10 weeks, and these class schedules are available in the Allman Center lobby. In addition, upcoming registration and prepayment dates for currently-enrolled students are posted during the latter part of each semester.

## New Students

The times and dates for registering can be found in the class schedules. At registration, new students will meet with an

advisor who will assist in the selection of courses and schedules. It is strongly recommended that all new curriculum students participate in an orientation session conducted by the counseling staff and faculty. This session provides an overview of the regulations, policies, and privileges of Forsyth Tech as found in the College Catalog and the Student Handbook.

## Returning Students

Each semester, returning students admitted to a program may register early. To register for courses, students are required to meet with their advisor to determine a schedule of courses for the upcoming semester. Any questions arising during this registration period concerning transfer credit for a course(s) should be directed to the College Transfer technician in the Admissions Office. To take advantage of this early registration, students must be sure to pay tuition and fees on the designated prepayment days.

## Special Credit Students

Special credit applicants wishing to register for classes should come to the advertised locations on the scheduled registration day to register and pay tuition and fees.

## Telephone Registration

Students who are currently enrolled at Forsyth Tech may register by telephone using the RSVP (Registering Students Via Phone) system. Current students will receive their PIN (personal identification number) through the mail and should contact their academic advisors prior to registering by phone. Payment of tuition and fees may be made by MasterCard or VISA at the time of registration or later at the Cashier's Office.

## Late Registration

On late registration day(s) as published in the class schedules, all approved students may see their advisor and register for classes for that semester. Advisors are on campus to assist students with the registration process, and the Cashier's Office is open to accept tuition and fees. Students may register for or drop courses on this day(s).

## Schedule Changes

To change their schedules, students may obtain Registration Adjustment forms from the Records Office. Students may drop and add classes during the drop/add period as noted in the class schedules. An advisor must approve all additions to class schedules. Classes may not be added after the drop/add period without permission of the division dean.

## Grade Reports and Transcripts

Students' grade reports are mailed after the end of each semester. The report includes the semester hour credits earned, the grade point average (GPA), and the cumulative GPA for the semester.

Transcripts, reflecting the student's complete academic record at Forsyth Tech, are maintained in the Records Office. Students may come to the office and complete a transcript release form, or they may write a letter stating the name or names under which they attended the college, their Social Security number, the years they attended, and where the transcript should be sent. Official transcripts are sent directly to employers, educational institutions, etc. Transcripts issued to students are unofficial and indicate that they were issued to the student. While an official transcript in a sealed envelope

may be issued to students, the transcript will note this procedure, and any receiving party will determine its acceptance as official. Students must pay a charge of \$2 for each transcript.

Transcripts from other schools and other documents or forms that Forsyth Tech has on file are not released, copied, or returned to the student.

A student's records may be sealed from the student's review and closed for purposes of readmission and grade posting due to financial debt to the college or litigation involving the student and the college. Inquiries regarding sealed records should be directed to the Records Office. Transcripts will not be issued as long as the file remains sealed.

## Graduation Requirements

To be eligible for graduation, students must complete all the courses and credit hours required in the program of study under which they were admitted with a cumulative grade point average of 2.0 (C). In addition, students must have received a passing grade in courses in their curriculum.

A candidate for an associate degree must complete at least 20 semester hours of credit at Forsyth Tech, with a minimum of 10 hours of credit in the major area. A candidate for a diploma must complete at least 10 hours of credit work at Forsyth Tech, with a minimum of 8 semester hours in the major area courses. Candidates for a certificate of completion must complete a minimum of 25 percent of their required course work at Forsyth Tech. Credit hours required in residency may not be met by proficiency examination.



Course requirements vary according to curriculum. Students should refer to the course requirements for their curriculum to determine if all requirements have been met and should routinely meet with their advisor to assure their progress toward graduation.

Every academic year, each curriculum publicizes a program of study for students admitted in that specific year. Students will graduate under the course requirements that are applicable at the time they enroll in a curriculum if they remain continuously enrolled until graduation. A student who applies for readmission after two or more semesters is accepted under the program of study in effect at the time of readmission, not under the program of study in effect at the time of the original admission. Students who change their curriculum are also admitted to the new curriculum under the current year's program of study.

In order to have complete information recorded on their transcripts, students should apply for their degree, diploma, or certificate at the time of their last semester registration. Intent to Graduate forms are available in the Student Data and Support Service Office, Allman 114 or the Cashier's Office, Allman, 2nd floor. There is a \$10 nonrefundable graduation fee that must be paid at the time the form is filed.

## **Student Withdrawals**

Students considering withdrawing from a class or from school are encouraged to contact their instructor to discuss the decision to withdraw. Drop forms may be obtained in the Records Office. When the student initiates a withdrawal or drop, the date the student completes the Drop Form is considered the official withdrawal date. When the instructor initiates a

drop, the date the instructor records on the Drop Form is the official withdrawal date. When students fail to notify the Records Office or instructor of the withdrawal, they may receive a failing grade.

**Withdrawal from a Class** – Students are responsible for completing a Drop Form and for notifying the instructor, advisor, Records Office, or Counseling Center of the decision to withdraw.

**Total Withdrawal from School** – A student who must withdraw from school before graduation, either permanently or temporarily, should withdraw officially. Students are responsible for completing a Drop Form and for notifying the instructor, advisor, Records Office, or Counseling Center of the decision to withdraw.

A student planning to discontinue enrollment at the end of a semester should fill out an End of Semester Withdrawal form available in the Counseling Center. This information is necessary to ensure that the student's status at the time of withdrawal is clearly identified in order to expedite reentry, to expedite transfer of credit to another institution, or to provide potential employers with accurate education information. Veterans and financial aid recipients must notify Student Financial Services.

## **Family Educational Rights and Privacy Act of 1974**

The Family Educational Rights and Privacy Act of 1974 (FERPA) provides many safeguards regarding the confidentiality of and access to student records.

1. Students may review their educational records by making a written request to the coordinator of Records.

2. Student records will not be reviewed by third parties unless permission is obtained in writing from the student. Exceptions may be made for instructors and administrators if the information is for educational purposes. Exceptions may also be made for parents who claim the student as a dependent and for credentialing, auditing, or accrediting organizations. The Vice President of Institutional Planning and Support Services will make the final decision concerning access to records.
3. Transcripts will be issued only when a written request is received from the student. Transcripts from high schools or other colleges will not be released.
4. Forsyth Tech does not publish or distribute directory information or any personally identifiable information.
5. Forsyth Tech publishes the names of graduates in the graduation program and in local news media. Names of students attaining academic honors each semester are also published. Students who do not wish their names published for graduation or academic honors must notify, in writing, the director of Student Data Support Services of their desire not to have their names published.
6. Authorities with court orders are permitted to review records in the presence of Student Development Services administrative staff.



# Academic Information

This section covers academic policies effective at the time of this catalog's publication.

## Classification of Students

**Full-time:** A student who is enrolled in 12 or more credit hours of course work; 9 hours for Summer Term.

**Part-time:** A student who is enrolled in fewer than 12 credit hours of course-work; fewer than 9 hours Summer Term.

**Special Credit:** A student who is enrolled in credit courses but who is not working toward a degree, diploma, or certificate.

**Audit:** A student who is enrolled in regular course work but who is not receiving credit for work undertaken.

## Program of Study

A student admitted to a degree, diploma, or certificate program must meet the requirements listed on the curriculum's program of study for the academic year during which the student was accepted. In general, students should work closely with their advisor to assure they follow the sequence of courses listed on the program of study to meet all course prerequisites and to complete the program in the allotted time frame.

### Prerequisites and Corequisites

Many curriculum courses have prerequisites and corequisites that are listed in the course descriptions at the back of this catalog. Before these courses may be taken, any prerequisite course must be completed, and corequisites must have been taken during a previous semester or during the same semester. If the occa-

sion arises in which a prerequisite should be waived, both the appropriate department chairperson and dean must approve the waiver in writing. If a course affects more than one division, written approval may be necessary from more than one department chairperson and dean before the student registers for that course.

### Course Repeat Rule

The last grade earned on a repeat course will be the grade computed for GPA. Withdrawal grades of W or WP will not be considered as repeat grades. A grade of WF will be considered as a repeat grade.

If students fail any course in their curriculum, they must repeat the course until a passing grade is received; otherwise, they cannot receive a degree, diploma, or certificate. Students are responsible for scheduling make-up courses required for graduation. Students may repeat a course at another college to meet graduation requirements; however, the repeated course will not affect the GPA at Forsyth Tech. The last grade at Forsyth Tech will remain on the transcript and will be computed in the GPA.

Students who fail one of the courses in the major subject area may be referred to the Counseling Center. The appropriate dean will make the final decision on students' permission to repeat a class after several attempts with a failing grade.

### Course Substitutions

Course substitution may be granted when deemed necessary for graduation or as a necessary accommodation to complete a degree. The appropriate dean's permission is required.

### Proficiency Exams

A student who has been approved for admission or a student already enrolled in a program of study may request to take a

proficiency exam for a course for which a proficiency exam is available. The student must receive permission from the appropriate department chairperson to earn credit for the course by proficiency evaluation.

It is not necessary for a student to be registered or enrolled in a course before requesting a proficiency exam; however, if the student is enrolled in a course for which a proficiency exam is requested, the request must be made by the tenth day of class. A student who withdraws from a course after the tenth day of class in any semester and has not formally submitted a request, may not earn credit for that course by proficiency exam for a period of one year. The academic advisor will certify that the student has not been enrolled in the course within the past year and that the prerequisites for the course have been satisfied.

Some curriculums have restricted proficiency exams, and the student must be admitted to that curriculum before a request will be considered. A student may take a proficiency exam for a given course only once in a twelve-month period at a nonrefundable cost of \$10 per exam. Guidelines on how to apply for a proficiency exam can be obtained from the office of the appropriate division dean, the Counseling Center, or the Records Office. Students who successfully pass a proficiency exam for a class will be given a grade of CR and hours earned will be granted but will not affect their grade point average.

### **Developmental Education Program**

This program offers a series of courses for preparation, remediation, and academic guidance to students who, for a variety of reasons, need additional courses because they do not meet the specific entrance requirements for the curriculum of their choice. The student's academic

study program is individually designed to meet that student's specific needs. The program provides students with an opportunity to build academic skills and acquire the background that should facilitate success in their desired curriculum.

These developmental courses are prerequisites to required curriculum courses. Students must receive a grade of C or better in each assigned developmental class in order to progress to the next level. Developmental Education courses do not meet graduation requirements. See the Developmental Education Program section of this catalog.

**Directed Studies Center** – This developmental education center is located in the Learning Center in Ardmore Hall and offers seven courses that students may take under the direction of an instructor. Students cover the subject material at their own pace, using programmed texts and supplementary materials. When students need help, they receive extended individual attention from the instructors. Perhaps the greatest advantage of taking a course in the Directed Studies Center is the sense of satisfaction and self-confidence students develop from working successfully in an individualized setting.

An added bonus is that the Directed Studies Center offers students flexibility in scheduling. The Center is open from 8:00 a.m. to 9:00 p.m. Monday through Thursday and from 8:00 a.m. to 2:00 p.m. on Friday. Students can attend class during any of these times, enabling them to work around outside commitments such as job and family demands. The Center also offers an alternative if a classroom course is full or is cancelled.

### **Distance Learning**

Distance learning courses offer students an alternative to traditional classroom instruction. The courses deliver instruc-



tional content to learners across distance and time via the newest technologies.

Various curriculum courses are delivered by the following means:

- ◆ **Telecourses** – Students access information in telecourses through video tapes and print materials. Telecourse videotapes will be made available one of two ways: (1) Through the “Course by Cassette” service - This service allows students to obtain a complete set of videotapes for their telecourse from the FTCC Bookstore. Students will need to have a home VCR to view the videotapes. (2) Cablecast on local cable TV - Students will be given a current cablecast schedule to view their telecourse videos.
- ◆ **Teleweb** – Increasing numbers of telecourses also include a course website for access to instructional materials and Internet resources. Videotapes for Teleweb courses will also be available through the “College by Cassette” service or local cable TV.
- ◆ **Online courses** – Each FTCC online course has its own website and students access their materials using a computer with reliable Internet access. It is highly recommended that students use a home computer for online courses.
- ◆ **InteractiveTV** – Students attend classes at a set time and place but are connected with several other classrooms through videoconferencing technology.

Curriculum courses using these delivery technologies offer new educational opportunities to FTCC students who are balancing jobs, family, and personal and professional situations. Distance learning courses offer convenience and flexibility while providing quality instruction and interaction. Support services are available to distance learning students to assist

them with academic and support needs. These include, for example, electronic access to the Reference Desk in the library and email access to information about student services. Email sent to [askdl@forsyth.cc.nc.us](mailto:askdl@forsyth.cc.nc.us) puts students in touch with information about distance learning at FTCC. Other resources are provided on campus by Student Development Services and the Learning Center.

Distance learning courses are demanding and require students who are highly motivated, independent learners. Students must have college-level reading and writing abilities as well as strong time management skills. Successful distance learning students must also be able to manage the technology used to deliver instructional materials. Attendance at a distance learning orientation is required of all distance learning students.

### **Independent Study**

Independent study provides an alternative for a student to earn credit for certain required courses. It should be used only when it has been determined that it would create an unreasonable hardship for the student to wait for the course to be available. Guidelines to be used are:

1. To be considered for independent study, students must file a Request for Independent Study form with their advisor, who will review the request and forward it with suggestions to the division dean for final action. The form should be completed during registration, and the student must register for the course during the registration period.
2. Acceptable reasons for allowing a student to take an independent study are: (a) one-time course sequencing difficulties, (b) scheduling problems that were no fault of the student, and (c) needing the course for graduation at

the end of the semester.

- Students will not be approved for independent study if their cumulative GPA is less than 2.0 or if they have failed or withdrawn while failing from the course in question.
- Students may be limited in the number of independent study courses taken to complete degree requirements. Exceptions require special approval from the division dean.
- All independent studies must be taught by a full-time instructor.

## Clinical Experience in Health Curriculum

- Clinical hours in any of the health curriculums may be scheduled during any part of the 24-hour day, seven days a week.
- Students will be informed in writing no later than the second class meeting when a clinical course has special attendance requirements.
- In order to pass clinical courses, students must pass all critical requirements for the course.
- Required uniforms must fit neatly in order for the student to meet the dress code of both Forsyth Tech and the clinical facilities.
- There are certain areas (operating room, obstetrics, isolation rooms) in the hospitals that require special hospital garments. To control infection, hospital policy requires that only those garments supplied by the hospital be used. Students who are unable to wear and be covered by these garments will not be allowed to go into that clinical area, which may jeopardize their ability to complete the curriculum.
- Failure to meet any dress requirements may jeopardize the student's ability to continue in a curriculum.

## Grading System

The following grading system is **generally** used by Forsyth Tech:

Number Grade per Grade Hr.	Letter Equivalent	Description	Quality Points
94-100	A	Excellent	4
86-93	B	Good	3
78-85	C	Fair	2
70-77	D	Passing	1
Below 70	F	Failing	0
Withdrawal	W		
Withdrawal Passing	WP		
Withdrawal Failing	WF		
Incomplete	I		
Audit	Y		
Course Transferred	TR		
Credit Granted or Passed Proficiency	CR		

Grades A, B, C, D, F and WF\* compute in grade point average (GPA).

\* "WF" is computed as an "F" in the grade point average.

Grades W, WP, I, Y, TR, and CR do not compute in grade point averages.

**W - Withdrawal.** A Withdrawal is the grade given to a student who officially withdraws from a course through the 50 percent point of the semester or the 50 percent point of a class when the class does not follow the regular semester calendar.

**WP/WF - Withdrawal Passing/Withdrawal Failing.** A Withdrawal Passing/Failing is the grade given to a student who officially withdraws from a class at any time after the 50 percent point of the semester.

A student may officially withdraw after the 50 percent point only after talking with the instructor of the class. If the student officially withdraws or if the student is dropped by the instructor, the instructor will determine if a grade of WP or WF is appropriate. The grade of WF computes as a grade of F.

**I - Incomplete.** The grade of Incomplete is given only if a student has a valid reason for failure to complete the work on schedule. Illness, absence on company business, or circumstances beyond the student's control are considered valid reasons for incomplete work. The student must have advised the instructor of the circumstance before the end of the semester to be granted an Incomplete grade. The instructor must have specified the work to be made up in order to remove the Incomplete grade and a date within the following semester by which the work must be completed. If the conditions necessary to remove the Incomplete grade will require additional hours of instruction, the student must register for the course again. If the student needs only to complete work without instructional supervision, this work must be completed no later than the end of the following semester.

Any student who receives an Incomplete grade on a course that is a prerequisite for a higher level course must make-up the incomplete work by the end of the drop/add period in order to be allowed to register for the higher level course.

If the Incomplete grade is not removed by the end of the semester immediately following the semester it was given, it will remain permanently recorded.

**Y - Audit.** Students auditing courses are not required to take examinations or submit written work but may do so if they wish. No grade or credit toward a degree/diploma is given. An audit may not be changed to credit, or credit changed to audit after the 10 percent point of the semester or the 10 percent point of the class when the class does not begin within the first five days of the semester. Normal attendance policies will apply. Audit students are expected to do assigned reading and participate in classroom activities. Students withdrawing during the semester will be given the grade of W.

The Audit Request form is available in the Records Office or from the appropriate division dean. It must be submitted to the Records Office for processing by the 10 percent point of the class.

### **Grade Point Average (GPA)**

Academic progress at Forsyth Tech is based on a 4.0, or letter grade of A, cumulative grade point average system. A final grade point average of 2.0, or a C, is required for graduation from all programs of study. Students accumulate grade points based on grades earned per semester. The grade point average is determined by dividing grade points earned in courses by the number of semester credit hours attempted.

## **Academic Recognition**

### **Graduation Honors and Awards**

Graduates in curriculums leading to a degree or diploma qualify for academic recognition at graduation. Students earning a cumulative GPA of 3.50 to 4.00 will be granted a diploma or degree with High Honors. Students earning a cumulative GPA of 3.00 to 3.499 will be granted a diploma or degree with Honors. A seal of recognition will be placed on the student's diploma or degree, and the student's transcript will be noted to reflect this achievement.

### **Honor Societies**

#### **Phi Theta Kappa**

Phi Theta Kappa is the International Honor Society of Two-Year Colleges. The purpose of the society is to recognize academic excellence among two-year college students; to provide opportunities for leadership training; to provide an intellectual climate for the interchange of ideas and ideals; and to instill in students the desire for continued education. In order to qualify for membership, students must maintain a cumulative grade point average of 3.5 or better and have earned at least 12 semester hours of credit.



## **National Vocational-Technical Honor Society**

The NV-THS has been America's foremost scholastic honor for excellence in vocational and technical education since 1984. Student candidates are persons who have demonstrated scholastic achievement, skill development, leadership, honesty, responsibility, and good character. All candidates must be approved by the college administration and must meet local and national membership standards.

## **Semester Honors**

Curriculum students who earn a grade point average of 3.50 to 3.999 for the semester are named to the Dean's List for the semester. Curriculum students with a grade point average of 4.0 are named to the President's List for the semester. To be eligible for these honors, students:

1. Must be approved and enrolled in a curriculum. (This excludes students in Developmental Education, General Technology core curriculum, special credit, and certificate programs.)
2. Must earn their GPA on a minimum of 9 credit hours of curriculum courses.
3. Must have completed all course work for the semester. Students with grades of Incomplete (I) will not be eligible.

## **Commencement Exercises**

Commencement exercises are held at the end of spring semester and summer term on the dates published in the academic calendar. Degrees, diplomas, and certificates are awarded at this time. Students are expected to notify the Director of Student Data and Support Services of their intention to participate in the exercises when they submit their Intent to Graduate form.

## **Commencement Marshals**

Marshals are selected from students in

degree curriculums who have maintained the highest scholastic averages. The marshal who has the highest academic average is named chief marshal.

## **School Rings and Pins**

Students in good standing who have completed at least one-half of the credit hours required for graduation in their curriculum may order a school ring. The student is required to pay a deposit at the time the ring is ordered, with the balance due upon delivery. Pins for some health curriculums are also available. Orders for both pins and rings may be placed in the Bookstore.

## **Attendance**

Forsyth Tech regards class lectures, demonstrations, and other in-class experiences as vital ingredients of the educational process. For this reason, students are expected to attend and to arrive on time to all class, laboratory, shop, practicum, and clinical experience sessions. Students are responsible for accounting to their instructors for any absence and should report to their instructors following any absence to determine if and when work may be made up. Habitual tardiness may, at the discretion of the instructor, be considered in computing attendance.

Students must satisfy the instructor that they should be permitted to remain in a course and attend classes after incurring absences in excess of the following:

1. five (5) hours of class, or
2. three (3) practicum (shop, laboratory, or clinical experience) sessions which meet for two (2) or more hours, or
3. three (3) hours of class and one (1) practicum (shop, laboratory, or clinical experience) session which meets for two (2) or more hours.

When students are absent from a class and a practicum (shop, laboratory, clinical experience) session which meet consecutively, each session missed will be counted as an absence.

Special attendance rules, different from those listed above, may be noted in the instructor's attendance policy included on the course syllabus. Students with questions or concerns should consult with their instructor.

## Academic Appeal (Concerning a Grade)

Any appeal of a course grade should begin with a scheduled conference between student and instructor. If the appeal is not resolved at this level, the student should arrange a conference with the appropriate department chairperson. If the student does not accept the decision of the department chairperson, the student may appeal to the appropriate division dean. The student has the responsibility to provide the dean with a written letter of appeal by the first class day of the new semester in order for the appeal to be considered. After conferring with the student, the dean can convene a division Academic Appeals Committee. This committee will hear the appeal and make a recommendation to the dean. The final decision is made by the dean, who will notify the student, the instructor, and the appeal committee chairperson in writing. Questions concerning the appeal process should be directed to the instructor, the department chairperson or the dean's office.

The student's letter should include:

1. date, student's name, signature and telephone number.
2. prefix and number of course for grade being appealed.
3. name of instructor issuing the grade.
4. brief explanation of why the student

feels the grade is incorrect and what the student feels the grade should be.

5. any supporting documentation the student feels is needed to explain more fully the student's position on the grade.

The appeal letter and any supporting documentation will be duplicated for the committee to review.

## Academic Standing/Probation

To be in good academic standing, a student must have earned within their major a cumulative grade point average (GPA) of 2.0, in courses required in their curriculum, by the end of the first semester at Forsyth Tech. A cumulative grade point average within their major of 2.0 must be maintained thereafter to remain in good standing.

A student who does not maintain the required 2.0 cumulative GPA in courses required in their curriculum will be placed on academic probation for the following semester. Students who do not earn the required GPA in the next semester will have their academic records reviewed by the division Academic Review Committee, which meets at the end of each semester. The committee may reduce the number of credit hours the student will be allowed to carry, require the student to repeat courses in which a low grade was earned, or elect to remove the student from the curriculum.

The student will be notified in writing of the committee's decision, and copies of the notice will be sent to the Records Office, the division dean, and the student's advisor. Students will be removed from probation automatically when the cumulative GPA within their major reaches 2.0. All students enrolled at Forsyth Tech are

expected to be fully aware of their academic status at all times and to be responsible for fulfilling the requirements necessary to remain in school and in good academic standing. Instructors, faculty advisors, and counselors are available for assistance, but it is the responsibility of the student to seek help.

## **Appeal to Academic Review Committee**

A student may appeal the decision of the division Academic Review Committee by submitting a written request to the appropriate division dean within 24 hours after formal notification of the committee's decision. The dean will convene the division Academic Appeals Committee, which will hear the appeal and make a recommendation. The dean will make the final decision on the matter and send written notification to the student, the department chairperson, and the student's advisor.

## **Transfer to Senior Colleges and Universities**

The College Transfer curriculum is designed to provide a quality educational experience equivalent to the first two years of a liberal arts college curriculum. Students who have earned the degree of A.A. (Associate in Arts) or A.S. (Associate in Science) can transfer to most public or private senior institutions with full junior-year standing. A minimum GPA of 2.0 is required for acceptable transfer credit.

The College Transfer curriculum enables the student to prepare for virtually any area of major interest and requires a minimum of 4 semesters. Courses are offered in mathematics; composition and literature; humanities; physical education; and the social, physical, and life sciences.

Counselors and advisors are available to assist students in planning acceptable programs for transfer to the desired college or university. The Career Guidance Center maintains copies of all college transfer agreements for student review.

Technical-level credit earned in the A.A.S. (Associate in Applied Science) degree programs at Forsyth Tech may be transferred to similar programs at other institutions. Acceptability of all technical transfer credit is determined by the institution to which the student wishes to transfer. Diploma credit is not transferrable to senior institutions.

The Career Guidance Center maintains a list of senior colleges and universities which currently accept some or all of the credit earned in the curriculums at Forsyth Tech. However, it is the student's responsibility to contact the Admissions Office at the receiving institution for transfer information.



# Tuition, Fees, and Parking

## Tuition Fee Basis

Forsyth Tech receives funds from local, state, and federal sources. North Carolina law (General Statute 115D) establishes the Community College System's tuition and fees, and the charges are subject to change without notice. Tuition charges are for credit hours enrolled, and the tuition rate per credit hour applies to all regularly enrolled students.

**In-State Tuition:**  
\$26.75 per semester hour

**Out-of-State Tuition:**  
\$169.75 per semester hour

For Summer Term, in-state tuition will not exceed \$240.75; out-of-state tuition will not exceed \$1527.75.

## Tuition and Fees for Curriculum Students

All tuition and fees are due and payable at the Business Office on the official days of registration. Students may pay by cash, certified checks, cashier's checks, or credit card (VISA and MasterCard). Personal checks will be accepted only with a numbered ID that has a picture of the student (usually a valid driver's license). Third party, out-of-country, out-of-state, and business checks will not be accepted.

No person may attend classes unless the registration procedure has been completed, all tuition and fees paid, and all debts to the college settled.

Students enrolled for 12 credit hours in Fall or Spring Semester are considered full-time. Students enrolled 9 credit hours during Summer Term are considered full-time. (Exception: Financial aid students must be enrolled for 12 credit hours each semester to be considered full-time.) Students will be charged per credit hour up to 14 credit hours.

Example:

Hours taken	In-State	Out-of-State
10	\$267.50	\$1,697.50
12	\$321.00	\$2,037.00
14+	\$374.50	\$2,376.50

Normal tuition rates apply to courses taken in the Learning Center. Supply fees are set to meet instructional needs in certain types of courses. Some curriculums require a pre-admission physical examination that involves additional cost to the student.

## North Carolina Residency Status

Under North Carolina law, each person must be classified as a resident or nonresident for tuition purposes. North Carolina law (General Statute 116-143.1) requires that to qualify as an in-state student for tuition purposes, a person must have established legal residence (domicile) in North Carolina and maintained that legal residence for at least 12 months immediately prior to enrollment to be considered for classification as a North Carolina resident.

All applicants who are petitioning for in-state residency must complete a Residency-and-Tuition Status Application form for further consideration and appeal. This form is available in the Admissions Office in the Allman Center. Questions regarding residency status should be directed to the associate dean

of Enrollment Management in the Admissions Office.

## **Tuition for Senior Citizens**

North Carolina residents 65 and older are exempted from paying tuition, except for self-support Corporate and Continuing Education courses. However, senior citizens are responsible for paying any additional fees and expenses.

## **Student Fees**

### **Student Activity Fee**

All curriculum students are charged \$9 per year for a student activity fee. When students pay this fee, they automatically become members of Forsyth Tech's Student Government Association. Though called an "activity fee," these funds are used to support student clubs and social activities, student publications, athletic teams, and student government expenses. For a more detailed list of the expenses covered by these fees, see the Student Life section of this catalog.

### **Lab Fees**

Some selected courses charge a lab fee for supplies, software, and equipment usage. These fees range from \$5 to \$65.

### **Books and Supplies**

The cost for textbooks and supplies is the responsibility of the student, and these items may be purchased at the Bookstore in Snyder Hall. The cost of books and supplies varies from curriculum to curriculum each semester. Students may wish to attend the first class before purchasing texts and materials.

### **Uniforms**

The cost for uniforms and other special apparel is the responsibility of the stu-

dent, and the initial cost of these items varies for each health curriculum. Students should ask the Admissions staff for details on these costs.

### **Other Fees**

No laboratory breakage or property damage fees will be charged to students. However, in case of breakage or damage due to gross negligence or maliciousness, a student will be expected to reimburse Forsyth Tech.

## **Graduation Fee**

Graduating students pay a \$10 fee for each degree, diploma, and/or certificate. A \$10 nonrefundable fee will also be charged to Adult High School graduates.

## **Transcript Fee**

A \$2 fee is charged for each copy of the transcript requested, whether official or unofficial.

## **Proficiency Exam Fee**

A student may take a proficiency exam for a given course only once in a twelve-month period. A Request for Proficiency Exam form (located in the dean's office) must be completed, and a \$10 nonrefundable fee is charged for each proficiency exam.

## **Refund Guidelines**

Tuition and supply fees can be considered for a refund. Students must complete a Request for Tuition Refund form in the Records Office when they drop class(es) and/or if classes are cancelled. Tuition and fee refunds for curriculum classes are subject to the following requirements:

1. A 100 percent refund may be made

upon request from the student if the student officially withdraws prior to the first day of classes of the semester as noted in the academic calendar. If Forsyth Tech cancels a course, the portion of tuition that paid for the cancelled course will be refunded in full.

2. A 75 percent refund may be made upon request from the student if the student officially withdraws from the class(es) prior to or on the official 10 percent point of the semester.
3. Student activity fees will be refunded only when classes are cancelled and the student is not registered in any other class.
4. Students passing proficiency examinations for courses they have registered and paid for are not eligible for tuition refunds.
5. Refunds of \$5 or less will not be made except for classes cancelled by Forsyth Tech.
6. Tuition is not transferable to other individuals.
7. Late tuition refund requests will not be considered.
8. Tuition may not be held from one semester to a future semester.

## Accident Insurance

Accident insurance covering the hours a student is in school, on field trips, or participating in student activities is provided to all full-time and part-time students.

The student insurance is furnished by Forsyth Tech as a service to students, but it is not meant to replace a student's personal coverage.

## Liability Insurance for Health Students

All health students must purchase annual liability insurance before engaging in lab or clinical practice. The cost for the

insurance varies according to the curriculum and insurance carrier. Health students who enter or reenter at a semester other than Fall Semester will pay a prorated cost for that year.

## Parking

Visitors are welcome on the campus of Forsyth Tech. Campus signs will indicate designated visitor parking areas. Any visitor receiving a ticket should return it to the person or office visited.

Students planning to park on campus are required to purchase a \$10 parking decal at the time of registration. **This fee is not refundable.** Specific rules governing parking are issued with each vehicle registration and may also be found in the current issue of the Student Handbook.



# Student Financial Services

## General Information

The purpose of financial aid is to provide monetary assistance to eligible students who would otherwise be unable to continue their education. The college will make every effort within available financial aid resources to assure that qualified students will not be denied the opportunity to attend college because of a lack of adequate funds to help meet educational expenses. Although the student and the student's parents are primarily responsible for financing a college education, financial assistance may be available to a student in the form of federal and state grants, scholarships, work study programs, and loans. Students who realize they will not be able to meet college expenses must take the early initiative in seeking information regarding financial assistance.

Students may apply for financial aid annually by completing the Free Application for Federal Student Aid (FAFSA), which is available after January 1 of each year for the following academic year.

Information and applications may be obtained from Student Financial Services. About four weeks after submitting the application, the student will receive a Student Aid Report (SAR) from the federal processor. On the application, students must list Forsyth Tech as the institution they plan to attend so the college will also receive a copy of the results. At that time, the office will inform the student of required documentation to complete the student's financial aid file.

It is recommended that applications for student aid at Forsyth Tech be submitted no later than June 1 preceding the academic year for which aid is requested. Applications submitted after June 1 will

be processed; however, funding for many programs is limited. Late applicants may find most funds already obligated.

Financial aid will not be awarded to any student until all admissions requirements are met for approval in an eligible program.

Most one- and two-year programs of study are eligible for financial aid. Students enrolled in some certificate programs, the Developmental Education program, or as Special Credit students are not eligible for financial assistance through Student Financial Services. Students are advised to contact Student Financial Services if they are unsure as to whether their program of study is an eligible program for financial assistance.

## Eligibility for Aid

Most awards are based on financial need. This is determined by subtracting the Expected Family Contribution (EFC) as reported on the Student Aid Report (SAR) from a student's educational costs. Other requirements may be established by the agency or individual making the funds available.

The student has an obligation to maintain the Satisfactory Academic Progress requirements as defined by the U.S. Department of Education and this institution for financial aid recipients. Each financial aid recipient is provided a copy of the policy upon notification of award. A copy of the requirements can also be obtained from Student Financial Services. Failure to maintain academic progress will result in the termination of financial assistance. Eligibility may be regained by reestablishing satisfactory academic progress.

Financial aid recipients must notify Student Financial Services of any change in enrollment status, program of study, or

address. Financial aid from all other sources must be reported as well to prevent over-awards.

## **Disbursement of Aid**

Students approved to receive financial assistance will receive an award letter detailing the types and amounts of aid awarded for the entire academic year. All financial aid recipients are notified in writing of registration procedures and are provided a disbursement schedule of all funds for the academic year.

Some diploma and certificate programs that do not lead to an associate degree are subject to the federal regulation of clock/credit hour conversion. Therefore, award amounts for students in these programs will be adjusted to meet the guidelines.

## **Refund Policy - Financial Aid**

The financial aid refund policy is in the process of being changed to the return of Title IV funds policy, as mandated by federal regulation. Final details are not known as of the date of this publication. When official rules are published, students should contact Student Financial Services for a copy of the revised policy.

**PLEASE NOTE:** All policies and regulations pertaining to federal and state aid are subject to change in order to meet regulations as changed by either the U.S. Department of Education, the state, or other entities.

# **Grants**

## **Federal Pell Grants**

The Federal Pell Grant program is a federal entitlement program designed to provide financial assistance to eligible students to attend post-secondary educational institutions. Students may apply by completing the Free Application for Federal

Student Aid (FAFSA). Applications may be obtained from Student Financial Services. Students should allow at least six weeks for processing.

## **Federal Supplemental Educational Opportunity Grant (FSEOG)**

The FSEOG is a program funded by federal and institutional matching funds and is awarded to the neediest students who are Federal Pell Grant eligible and demonstrate a low family contribution.

## **North Carolina Community College Grant (NCCCCG)**

The NCCCCG program is funded by the state to provide need-based aid to students who are NC residents and attending one of the 59 community colleges in the state. Students must be in an eligible curriculum program and be enrolled in at least six credit hours per semester. Students must complete the FAFSA, have a valid Expected Family Contribution (EFC) within a specific range, and meet all other eligibility requirements.

## **North Carolina Student Incentive Grant (NCSIG)**

The NCSIG is a program administered by College Foundation, Inc. from state and federal funds provided through the NC State Education Assistance Authority for students who demonstrate substantial financial need. It is open to North Carolina residents attending Forsyth Tech full-time and who apply by March 15.

# **Work Programs**

## **Federal Work Study Program (FWS)**

The FWS is a federally supported program with institutional, matching funds through which students, primarily from low income families, are given positions on campus for part-time employment (generally from 10 to 20 hours per week).

Students must be enrolled at least half-time and maintain satisfactory academic progress to be eligible for the program.

**Regular FWS** jobs are available in many academic and administrative departments on campus. Regular FWS students are paid \$6 per hour.

**Community Service FWS** jobs are available on the West Campus and at other sites in our local service area and involve tutoring special needs students in reading skills. These positions may also include assisting disabled students with their classes on the Main Campus. Community Service FWS students are paid \$6.50 per hour. Community Service FWS positions earn more than regular FWS positions due to the responsibilities involved, as well as to support transportation expenses that may be incurred.

## Loans

Loans at a low rate of interest are available through the following agencies:

- ▲ North Carolina Community College Loan
- ▲ North Carolina State Education Assistance Authority - NESLP and NSP
- ▲ North Carolina Student Loan Program for Health, Science, and Mathematics
- ▲ Sloan S. Sherrill Nursing Loan Fund at Forsyth Tech

## North Carolina Community College Loan (NCCCL)

The NCCCL program is funded by the state to provide need-based financial assistance funds for short-term loans. These funds are limited to continuing students who have a 2.0 cumulative GPA, are enrolled at least half-time, are in an eligible curriculum program, and meet all other eligibility requirements.

## North Carolina Nurse Education Scholarship/Loan Program (NESLP)

The NESLP was designed to address the shortage of trained nurses practicing in North Carolina. Funds are available for study in nurse education programs located in North Carolina that lead to a degree (ADN) or a diploma (PN). Funding is contingent upon appropriations by the General Assembly of North Carolina. All scholarships/loans made under the NESLP are based on demonstrated financial need. Contact the Student Financial Services for more information.

## North Carolina Student Loan Program for Health, Science, and Mathematics

This program is administered through the NC State Education Assistance Authority to provide loan funds to students enrolled in a wide range of eligible programs of study for the enhancement of the state's health care delivery system and educational institutions.

## Nurse Scholars Program (NSP)

The NSP is a competitive scholarship/loan. Financial need is not a criterion. An eleven-member Nurse Scholars Commission, created by the General Assembly of North Carolina, developed the selection criteria and the method of selection, and selects recipients on a statewide basis.

Students interested in learning more about the Nurse Scholars Program can contact either the NC State Education Assistance Authority or Student Financial Services between January 1 and April 20. The deadline for submitting applications to the state is usually May 1 of each year.



## **Sloan S. Sherrill Nursing Loan Fund**

The Sherrill Nursing Loan is an interest-free loan made through Forsyth Tech for second-year Associate Degree Nursing students. For more information and applications, students should contact Student Financial Services by May preceding the academic year for which a loan is requested.

## **Scholarships**

Students are encouraged to contact Student Financial Services for additional information and application criteria for the scholarships listed below:

### **Adult High School/GED**

- ▲ **The Forsyth Technical Community College Adult High School Graduate Scholarships** are awarded annually to students who have graduated from the Forsyth Technical Community College Adult High School program on West Campus and plan to pursue higher education on the Main Campus.
- ▲ **The Forsyth Technical Community College GED Graduate Scholarships** are awarded annually to students who have the highest scores in the Forsyth Technical Community College GED program on West Campus and plan to pursue higher education on the Main Campus.

### **Business Technologies**

- ▲ **The Corn Products Scholarship** is awarded annually to students entering the second year of a business-related curriculum. The scholarship is for Forsyth County residents only and is based on academic ability and financial need.

- ▲ **The Mary Kate Dixon/Winston-Salem Garden Study Club Scholarship** is awarded annually to an outstanding student entering the second year of Horticulture Technology.
- ▲ **The Forsyth-Stokes-Davie Chapter of Medical Assistants Academic Scholarship** is awarded to a full-time student with the highest GPA in the second year of the Medical Assisting program.
- ▲ **The Integon Scholarship** is awarded to students in Office Systems Technology who have at least a 2.30 GPA.
- ▲ **The Sandra Lea Johnson Memorial Scholarship** is awarded annually to an outstanding student entering the second year of Office Systems Technology.
- ▲ **The Clara K. Martin/Winston-Salem Soroptimist Club Scholarship** is an academic scholarship awarded to the female with the highest GPA entering the second year of Accounting.
- ▲ **The Steven R. Moser Memorial Scholarship for Needy Students** is awarded to two students in Paralegal Technology who demonstrate financial need.
- ▲ **The Tom Staley Memorial Scholarship** is awarded annually to a student in the second year of Business Administration who has at least a 3.0 GPA.

### **Engineering Technologies**

- ▲ **The R. D. Boyer Scholarship** is awarded annually, based on financial need, to a student pursuing a career in construction occupations.

- ▲ **The FTCC Car Show Scholarships** are awarded to students in the Automotive Systems Technology, Autobody Repair, and Heavy Equipment and Transport Technology (Diesel) Diploma programs.
- ▲ **The Marshall P. Johnston Scholarship** is a perpetual scholarship available to Automotive Systems Technology students.
- ▲ **The Randall R. Jones Scholarship** is awarded to the daytime Machinist Technology student with the highest GPA.
- ▲ **The Miller Brewing Company Tools for Success Graduation Award** is presented to outstanding students graduating from Electrical/Electronics Technology; Air Conditioning, Heating, and Refrigeration Technology; and Automotive Systems Technology/Race Car Performance.
- ▲ **The Modern Machine Scholarship** is awarded annually to a deserving student in Welding Technology and is based on academics and need.
- ▲ **The National Tooling and Machining Scholarship** is awarded to the full-time evening Machinist Technology student with the highest GPA.
- ▲ **The RJR Archer Scholarship** is an academic scholarship for students in Manufacturing Engineering Technology, Electronics Engineering Technology and Mechanical Engineering Technology - Drafting and Design Concentration.
- ▲ **The Society of Manufacturing Engineers Scholarship** is awarded annually to two students: one in Manufacturing Engineering and one

in Drafting & Design Technology.

## Financial Need

- ▲ **The BellSouth Communications Scholarships** are awarded annually to full-time students. Priority is given to applicants with the highest financial need and applicants whose job skills have become obsolete due to economic recession.
- ▲ **The Fred M. and Marjorie P. Crouch Memorial Scholarship** is awarded annually to a student deemed as demonstrating financial need by Student Financial Services.
- ▲ **The Forsyth-Stokes-Davie Chapter of Medical Assistants Need-based Scholarship** is awarded to a full-time student who exhibits academic excellence and financial need in the second year of the Medical Assisting program.
- ▲ **The Forsyth Technical Community College Bookstore Endowment Scholarship** awards academic scholarships for certain curriculums, as well as providing tuition and book assistance and emergency funds for those students deemed as demonstrating financial need by Student Financial Services. All awards are based on available funds.
- ▲ **The Forsyth Technical Community College Foundation Scholarships** are awarded to students deemed to demonstrate financial need by Student Financial Services. All awards are based on available funds.
- ▲ **The Friends of the College Scholarship** is a need-based scholarship for all programs.
- ▲ **The Norman Gaddis Emergency Fund** is sponsored by the Student Government Association. It is prima-

rily an emergency loan for students eligible for financial aid when funds are not available from other sources. The funds received must be repaid.

- ▲ **The Bob H. Greene Scholarship** provides emergency assistance for tuition/fees or books/supplies to students who demonstrate a financial need by Student Financial Services.
- ▲ **The Louise G. Wilson Scholarship** is available to poverty-level Forsyth County residents who are accepted or enrolled in the diploma or technical curriculums.

## Health Technologies

- ▲ **The Don Angell Nursing Scholarship** is awarded annually to an Associate Degree Nursing or Practical Nursing student. Priority is given to employees of Angell Care, Inc. and their dependents.
- ▲ **The Lynne Breedlove O’Roarke Memorial Scholarship** is awarded annually to an outstanding student entering the second year of Radiography.
- ▲ **The Rufus Dalton Memorial Scholarship** is a need-based scholarship for nursing students.
- ▲ **The Allen and Para Lee James Memorial Scholarship** is awarded annually to a student enrolled in the Certified Nursing Assistant II class on West Campus with priority given to employees of the Homestead.
- ▲ **The Mary B. Lauerman Memorial Scholarship** is awarded annually to the full-time student with the highest cumulative GPA entering the second year of Associate Degree Nursing.

- ▲ **The Medical Alliance of the Piedmont - Allied Health Awards** are scholarship funds awarded to students in allied health programs.

- ▲ **The Medical Alliance of the Piedmont Scholarships** are awarded to students entering Associate Degree Nursing and may be renewed for the second year of the program.
- ▲ **The Jane Gaither Murray Scholarship** is awarded annually to a deserving student entering Associate Degree Nursing.

- ▲ **The Pilot Club-McPhail Fund Scholarship** is awarded annually, based on financial need, to a female student in Associate Degree Nursing.
- ▲ **The Mr. and Mrs. Henry F. Snyder, Sr. Scholarship** is a need-based scholarship for students in all programs. Priority is given to males in allied health programs.

- ▲ **The Lettie Pate Whitehead Foundation Scholarships** are awarded annually to female nursing and allied health students who have demonstrated need through Student Financial Services. Awards are made as long as funds are available.

## Minority and/or Unemployed

- ▲ **The Forsyth Technical Community College Educational Opportunity for African-Americans Scholarships** are awarded annually to African-American high school seniors in the Winston-Salem/Forsyth County school system who plan to attend Forsyth Tech.
- ▲ **The Sprint Scholarship** is awarded annually to two students. Priority is given to minority and/or unemployed students.



## Miscellaneous

- ▲ **The 1990 Student Government Association/Tom Mayerchak Scholarships** are awarded annually to deserving students entering the second year of a technical or College Transfer curriculum. This program also awards three need-based scholarships and provides funds for emergency use.
- ▲ **The Hastings Company Scholarship** is awarded annually. First priority is given to a dependent of a Hastings Company employee. Second priority goes to a Stokes County resident.
- ▲ **The Lucent Technologies Telephone Pioneers Scholarships** are awarded to full-time students who are North Carolina residents having at least a 2.0 cumulative GPA and who are enrolled in an eligible curriculum program.
- ▲ **The Wachovia Technical Scholarship** is awarded annually to three students who are enrolled full-time in the second year of a technical curriculum and is based on need and scholastic promise.
- ▲ **The Winston-Salem/Twin City Kiwanis Club Scholarships** are awarded annually to graduating high school seniors who plan to attend Forsyth Tech.

**PLEASE NOTE:** In addition to the scholarships listed above, there are various individuals and organizations who contribute money yearly for scholarships to needy students. Most of the money available is not restricted; however, some of the scholarships are limited to individuals enrolled in certain curriculums. Contact Student Financial Services for specific information regarding all federal, state, and local funds.

## Other Sources of Aid

Other sources of aid not administered by Forsyth Tech are available for eligible students. Interested students should apply with the appropriate agency. Student Financial Services can assist the students in making the initial contact with the sources listed below:

- ▲ Dependency and Indemnity Compensation (VA Educational Benefits)
- ▲ Experiment in Self-Reliance
- ▲ North Carolina National Guard Tuition Assistance Plan (TAP)
- ▲ North Carolina Veterans Affairs (State VA Scholarship)
- ▲ North Carolina Vocational Rehabilitation
- ▲ Winston-Salem Foundation
- ▲ Workforce Investment Act (JTPA)

## Veteran's Benefits

Most programs of study offered at Forsyth Tech are approved for the training of persons eligible for benefits administered by the Veteran's Administration (VA). Veterans should contact Student Financial Services to find out if a program is approved and to make application for their VA educational benefits.

The Admissions Office will help applicants select a program of study and explain the procedures for enrolling in Forsyth Tech. The admissions process will require application forms, testing, and the receipt and evaluation of transcripts from all prior training in order for the students to be approved for enrollment.

After registering, an enrollment certification will be transmitted to the Veteran Affairs Regional Office for processing. Tuition and fees must be paid by the veteran upon registering for classes. Forsyth Tech cannot postpone payment until veter-

ans receive payments of their educational benefits. Educational benefits will be paid directly to the veteran.

Veterans are responsible for being familiar with the information found in the *Student Handbook*, *College Catalog*, and all veteran's brochures and information obtained from Student Financial Services.

**Hours of Pay**

Veteran's benefit payments are issued monthly and are based on training for a prescribed number of credit hours per semester, as shown below:

Full-time . . . .	12 or more credit hours
3/4 time . . . . .	9-11 credit hours
1/2 time . . . . .	6-8 credit hours
Less than 1/2 time . .	1-5 credit hours

**Standards of Progress**

Federal regulations require that students receiving veteran's educational benefits must maintain standards of academic progress and conduct.

**Satisfactory Academic Progress**

The "Academic Standing" section of the *Student Handbook* describes the basic academic requirements for all students. A 2.0 cumulative GPA must be maintained, and a probationary period of not more than one semester is permitted. Progress is reviewed at the end of each semester.

If a veteran or eligible person is classified as making unsatisfactory progress, the Veteran's Administration will be notified and benefits will be terminated. Termination will take place effective with the posting of grades at the end of the probationary semester. Recertification will not be made until satisfactory progress has been established by the veteran's regaining a 2.0 cumulative GPA. Students should request recertification from Student Financial Services following the semester in which satisfactory progress has been

regained.

**Satisfactory Conduct**

Conduct in accordance with the "Student Conduct and Responsibilities" section of the *Student Handbook* is expected of all students. Dismissal of veterans or eligible persons for unsatisfactory conduct will be reported to the Veteran's Administration, and benefits will be terminated.

**Satisfactory Attendance**

All students are expected to maintain satisfactory attendance as defined in the section in this catalog on attendance. Eligible persons dropped from courses for nonattendance or poor attendance, or those who withdraw, will be terminated or have their hours reduced effective with the last day present in class. Unless mitigating circumstances are involved, the Veteran's Administration may determine this termination or reduction to be an overpayment retroactive to the beginning of the semester.

**Punitive/Nonpunitive Grades**

Federal regulations prohibit payment for grades that do not count as progress toward graduation. Audits are not payable. A grade of WF is punitive because it counts as an F in the GPA computation. A grade of W or WP is nonpunitive because it does not count in the GPA computation. If an eligible person drops a class which reduces training time, the Veteran's Administration will be notified. If an eligible person drops a class and receives a punitive grade, payments will be adjusted effective the last date the class was attended. If an eligible person drops a class and receives a nonpunitive grade, payments will be adjusted effective retroactive to the beginning of the semester; this adjustment may result in an overpayment, unless mitigating circumstances are documented.

# **Student Services and Support Programs**

## **Career Guidance Center**

Professional counselors provide career exploration and planning assistance to help students identify career goals.

Participation involves a group intake session that allows the counselor to evaluate the needs of each student. A variety of available inventories help the counselor and participant explore interest areas.

Follow-up appointments provide personalized information. In addition, occupational information is available to assist in exploration of career options.

## **Counseling Center**

The Counseling Center maintains a staff of professional counselors who are available both days and evenings to assist students with educational, vocational, financial, social, or personal problems from the time they enter school until they leave. Assistance is provided to facilitate wise choices, decisions, and adjustments associated with being a student.

Counselors also serve as consultants to faculty and staff in helping to meet the educational needs of students.

Sometimes an instructor may refer a student who is experiencing difficulties to the Counseling Center or may request that a counselor contact the student for an appointment. Students may be referred to appropriate community agencies or resource persons when it is apparent that they might benefit from additional assessment/therapy.

The counseling staff adheres to the

Ethical Standards of the American Counseling Association and the National Board for Certified Counselors. All discussions and consultations are confidential; however, exceptions may be made when students present a danger to themselves or others or if students disclose that they are involved in an illegal activity.

## **Disability Services**

Forsyth Tech provides equal access to education for persons with disabilities. In order to establish the student's eligibility for services, it is the responsibility of the student to provide documentation of the disability to the director of Testing/Special Services/ADA. Requests for disability services should be made approximately one semester in advance of need in order to identify any special equipment needs and to facilitate adjustments in curriculums, facilities, or schedules, if needed.

Special services currently available for persons with disabilities include, but are not limited to: tutors, readers, and note takers; a TTY (text telephone); staff members with basic manual language skills; taped texts; adapted computer equipment; and modification of placement test administration. Students who require attendant care are responsible for their own arrangements.

## **Employment Assistance Center**

The Employment Assistance Center (EAC) offers employment services to current students and graduates of Forsyth Tech. Students and graduates who register with the EAC have access to the over 1,000 job listings received from area employers each year. In addition, a representative from the Employment



Security Commission (ESC) is available in the EAC to work exclusively with Forsyth Tech students and graduates. Students who register with the on-campus ESC representative have access to local, state, regional, and national job opening information.

The Employment Assistance Center also provides the following services to current students and graduates: individual career counseling, help in writing resumes and cover letters, interview preparation, and handouts and resource materials on job search skills and job market information.

## Minority Male Mentoring Program

The Minority Male Mentoring Program is open to all minority male students at Forsyth Tech. Students meet monthly with members of the local business community and faculty and staff at Forsyth Tech. The goals of the program are to:

- ◆ Provide an open forum for minority males to discuss issues and concerns with professionals and mentors;
- ◆ Promote goal-setting and positive choices in decision-making;
- ◆ Improve the retention and graduation rates of minority males at Forsyth Tech;
- ◆ Enhance communication skills, self-discipline, motivation and self concept;
- ◆ Develop job seeking skills and promote workforce preparedness; and
- ◆ Provide practical knowledge of budgeting, investments, savings and financial planning.

For more information about this program, contact the associate dean of Enrollment Management in the Admissions Office, Allman Center.

## Women's Resource Center

The Women's Resource Center is an on-campus facility that promotes the educational, personal, and professional development of women. The Center addresses many issues including creative child care, financial management, health education, legal matters, and professional and personal development. Networking and collaborating are the guiding principles for the Center's services. The Center's comfortable lounge, library resource area, administrative staff, and support team provide a welcoming and supportive environment for Forsyth Tech's diverse student population. Programs and assistance offered through the Center include:

- ▲ **The Single Parent/Displaced Homemaker Program** - This state-funded program assists single parents and displaced homemakers with child care, allowing eligible students the flexibility to plan and complete a training program in order to become economically self-sufficient.
- ▲ **Workforce Investment Act** - The Workforce Investment Act is now the Nation's principle workforce development legislation, replacing the Job Training Partnership Act (JTPA). It represents the first major reform of the Nation's job training system in more than fifteen years. As funds are available, the Women's Resource Center will continue to work with students who are in need of tuition, books, child care, and/or transportation.
- ▲ **Workshops** - The Women's Resource Center schedules workshops on a variety of subjects during each semester. Information presented during the workshops provides

guidance for handling issues and challenges that students are facing in the work, home, and school environments. Open forums are also conducted to allow students to ask questions and voice their opinions.

- ▲ **Counseling and Referrals** - The Director of the Women's Resource Center is available to provide counseling and referrals based on each individual's situation. All information gathered during counseling or referrals remain confidential. One of the most critical objectives of the Center's counseling and referral service is to match the individual with the appropriate agency/organization that will suit his or her need. Some organizations that have collaborated with the Women's Resource Center to provide counseling or other assistance are:

- ◆ Battered Women's Services
- ◆ Centerpoint Human Services
- ◆ Department of Public Health
- ◆ Department of Social Services
- ◆ Doctors Care
- ◆ Experiment in Self-Reliance
- ◆ Family Services, Inc.
- ◆ Forsyth Tech Counseling Center
- ◆ North Carolina Council for Women
- ◆ Social Security Administration
- ◆ W-S/FC Council on the Status of Women
- ◆ Winston-Salem Housing Authority
- ◆ Winston-Salem Urban League
- ◆ Workforce Development of Winston-Salem

## Learning Resources

### Library

The library's collection includes more than 32,000 books and audio-visual software. Most materials may be checked out for two weeks. Although no fines are charged, students are responsible for

replacing books that are lost or damaged. Until replacement is made, library privileges will be revoked; the student will not be permitted to register, and the student's records will be sealed. Members of the library staff are always available to help students locate and use the library resources.

Located on the first floor of Ardmore Hall, the library is open Monday through Thursday from 7:30 a.m. until 9:00 p.m. and on Friday from 7:30 a.m. until 3:00 p.m.; Saturday hours are from 9:00 a.m. to 12 noon, except during the summer term.

### Learning Center

Located in Ardmore Hall, the Learning Center offers a variety of services and programs designed to assist both faculty and students.

**Tutoring Services** - Tutoring Services offers several methods for helping students who are having academic difficulties. Tutoring is done in one-to-one or small group session 2-3 times a week by tutors who are primarily fellow students who have received training. Assistance is offered in virtually every academic course offered on the main campus. The Learning Center also has math, science, reading and basic writing skills tutoring centers, all staffed by well-qualified lab assistants. Students can use these centers on a drop-in basis. Both tutoring and tutoring center help are free to students, but students must be referred by their instructor. In addition, Learning Center staff conduct a variety of workshops on learning skills.

The various tutoring services share the goal of increasing retention rates while helping Forsyth Tech students become independent, lifelong learners.

**Computers for Writing Papers** – The Learning Center has PC's with Internet access for students to write class papers, reports, assignments, etc. This free service is available to any enrolled student doing class-related work.

**Placement Test Preparation** – Most people entering Forsyth Tech are required to take a placement test. To help these future students, the Learning Center offers worksheets, practice tests, and tips on test taking. This service is especially helpful for people returning to school after a long absence.

**Services for Instructors** – The Learning Center has several services for instructors. The Center can administer make-up tests for instructors whose students miss a test; it houses and distributes the materials for the telecourses; and it can provide special accommodations to help instructors comply with the Americans with Disabilities Act.

## Other Services

### Bookstore

Located on the first floor of Snyder Hall, the bookstore is operated by Forsyth Tech as a service to students, faculty, and staff. Textbooks, school supplies, and course-related materials, as well as other items of special interest to students, are offered for sale.

The bookstore stocks as many used texts as possible at the beginning of each semester, and students have the opportunity to sell their used books at the end of each semester. Full refunds for books are given during the first ten class days of each semester in accordance with policies posted in the store.

### Book Return Policy

1. Last day of returns: tenth class day (posted in the store).
2. No refund without receipt.
3. No cash refunds on grants.
4. Books must be unmarked and in good condition.
5. New books with names written inside will be refunded at used book price, even if the course is cancelled.

Books for corporate and continuing education courses are sold at the West Campus bookstore during specified hours at the beginning of each semester. Summer term evening hours will be posted at the bookstore.

Books may also be purchased on the FTCC Bookstore website:  
[www.ftcc.bkstr.com](http://www.ftcc.bkstr.com)

### Housing

Since Forsyth Tech has no dormitory facilities, students who wish to live away from home must make their own housing arrangements. Housing and apartment information may be obtained from the Counseling Center in the Allman Center.

### Health Services

Limited health services are provided through the Public Safety Office. First-aid supplies are located in shop areas; however, injuries requiring more than minor first-aid will be treated in the emergency room of either Forsyth Medical Center or Wake Forest University Medical Center.

### Food Services

A cafeteria is located in the lower level of Hauser Hall. Vending services are available in Snyder Hall, Parkway Building, Carolina Building, Greene



Hall, Swisher Center, West Campus, and the Woodruff Center.

## Lost and Found

The Public Safety Office handles lost and found articles on the main campus. On other campuses, the Information /Registration Centers handle lost and found articles. All lost articles of value should be reported to the Public Safety Office.

## Student Center

A student center is located on the ground level of Snyder Hall. Students are invited to use the center as a place to meet, talk, eat, and relax.

## Campus Information

**Telephone Calls to Students:** Forsyth Tech does not have the facilities to forward general telephone messages to students and will not do so except in the case of an emergency. Emergency calls should be directed to the operator, the Counseling Center, Public Safety, or the appropriate dean's office. Those calling in an emergency will be asked to state the nature of the emergency and to give their name and a return telephone number. Forsyth Tech staff will then make every effort to relay this information to students.

It is the policy of Forsyth Tech not to give out identifying information about students to telephone callers and/or unidentified persons without the permission of the student (Family Rights and Privacy Act). The Records Office only handles inquiries concerning students' records.

## Use of Facilities

- The buildings and their contents exist solely for the education of Forsyth Tech's adult population, and the use of these facilities for any other purpose is strictly prohibited.
- Smoking is prohibited in all classrooms, laboratories, shops, and auditoriums.
- Animals are prohibited inside the buildings. Any animal on the campus grounds must be on a leash in compliance with the City of Winston-Salem Leash Law Ordinance Section 3-18.
- Children are not allowed in classrooms or shop areas during class sessions, nor may they be left unattended in the library, canteen areas, or on campus grounds.



# Student Life

## Student Government Association (SGA)

The Student Government Association is composed of all current Forsyth Technical Community College students and is served by the Student Government Council. The Student Government Council (SGC) consists of the student government officers, Alpha Mu Beta Fraternity members, and other Student Government Council representatives. Participating students are people who are interested in developing leadership skills to be used in their careers in business, industry, or government. Students learn to work together to accomplish a wide range of projects that have a high impact on the college and community.

## Student Government Council

The Student Government Council is intended to be a laboratory of development for motivated students. People who get involved find themselves learning, growing and doing things they never thought they could do. This is a program in which students can test their education, experiment with social and group dynamics, and make positive personal changes without fear of criticism.

The Student Government Council with the Student Activities supervisor manages the Student Activities budget and meets in business sessions. During the meetings, the members address student issues and plan and produce student activities such as Fall Festival, Spring Fling, blood drives, leadership workshops, and other projects. During meetings and projects, students learn and practice parliamentary procedure, group skills, team work, and project

management and gain the experience of getting things done in a large institution. Some students choose to work with the budget, practice secretarial skills, or do advertising, student publications, and other public information duties. SGC also represents the student body to the college administration. The SGC president serves on the Forsyth Tech Board of Trustees and reports to the SGC about Board activities when appropriate. The SGC also serves as a vehicle of communication to the students for the administration. Members of the SGC attend statewide conferences about twice a year. During the conferences, students meet student leaders from community colleges from across the state. They have an opportunity to share ideas and concerns and learn leadership skills in workshops.

## Alpha Mu Beta

Alpha Mu Beta is the service fraternity of the SGC. Known as **Ambassadors**, they are a high profile group of students who spark interest in student life through campus networking, personal growth and service to the community. Applicants are selected for their high scholastic achievements and communication skills. Ambassadors become proficient in meeting people and in the organizational, time management, planning and leadership skills that will help them in their chosen fields. Applicants who are accepted into the fraternity discover a relaxed, yet disciplined, fellowship that encourages growth. Ambassadors have the opportunity to produce such events as the Angel Tree, Martin Luther King, Jr. Celebration, and many other service projects for the benefit of the college family and community.

## Flight Line Program

The Flight Line Program is a process by which students can track their time spent

in leadership efforts within the Student Government Council. This program allows students to have a tangible record of these efforts which also indicates to the entire institution the work that is being done by members of the student government. In addition, the program serves as an "extracurricular transcript" for students to utilize as they seek further education or employment. For example, students will keep track of how many hours they spend in areas of campus service, community service, and other projects during a semester. At the end of each semester, students are given awards based on how many hours were recorded. The flight metaphor represents the potential we all have to soar above our limitations and exceed our expectations. Thus, Flight Line awards are named for pioneers of flight such as the Wright Brothers, Chuck Yeager, and Ronald McNair.

### Membership Requirements

If you are interested in one of the Student Government programs, you must:

1. Check your cumulative Grade Point Average.
  - \* Ambassadors are required to maintain a 3.0 GPA.
  - \* Student Government Council members must maintain a 2.5 GPA.
2. Be registered for the correct number of credit hours.
  - \* Student Government Council members must be registered for one credit hour per semester.
  - \* Ambassadors must be registered for at least six credit hours per semester.
3. Fill out a Student Government Council Application.
  - \* **Student Government Council applicants need not have the application signed by their dean at this point.**
  - \* Ambassadors must have the application signed by a faculty or staff member.
4. File the Application.
  - \* Take your application to the Student

Activities Center in Snyder Hall or mail it to: Eddie Waddell, Forsyth Technical Community College, 2100 Silas Creek Parkway, Winston-Salem, NC 27103

Applications may be picked up in the Student Activities Center in Snyder Hall.

### Interview Process

Students who apply for a position in the Student Government Council must undergo an interview process. The program's advisor will call applicants to set up interview appointments. All applicants must be interviewed by the membership committee and the Student Activities Supervisor.

All SGC candidates are required to complete an Orientation Program. Details of the orientation program can be obtained from Eddie Waddell, Student Government Council advisor.

## Student Activities & Athletics

Forsyth Tech strives to offer its students more than just an academic education. Efforts are made to provide students with extracurricular opportunities for involvement that will help to educate the total individual. By providing extracurricular activities, Forsyth Tech recognizes that a college education includes social, professional, and cultural involvement, as well as academics. Students are invited to come by the student Activities Office in Snyder Hall to find out more about what Forsyth Tech has to offer outside the classroom.

All curriculum students pay the student activity fee when they register and automatically become members of Forsyth Tech's Student Government Association. Though called an activity fee, it is used



for far more than just providing activities. Below is a list of expenses covered by the student activity fee.

1. Graduation expenses are partially covered. It costs over \$25 per student to hold a graduation ceremony. Currently, students pay a graduation fee of \$10 for each diploma received.
2. Student activities and entertainment such as the Fall Festival, Spring Fling, Martin Luther King, Jr. Celebration, and Night Student Appreciation are free to students.
3. Student publications such as the Student Handbook and the student newspaper, *Technically Speaking*.
4. Athletic teams participate in men's basketball, coed volleyball, and women's fastpitch softball with other community colleges. Equipment and registration fees are paid out of the student activity fee budget.
5. All Student Government Association expenses are paid out of student activity fee funds. Expenses include the student activities supervisor's and secretary's salaries, supplies and materials for the SGA Office, and all SGA printing expenses.
6. Attendance at SGC conferences is a major expense of the SGA. Forsyth Tech is a member of the North Carolina Comprehensive Community College (N4C) Student Government Association. The N4CSGA offers three conferences each year. These conferences offer workshops and seminars to prepare students to lead the SGAs on their campuses.

The Forsyth Tech men's basketball team is a member of the National Junior College Athletic Association. Intercollegiate athletic teams are offered in women's fastpitch softball and coed volleyball. Interested students should contact the Student Activities Office regarding participation.

## Student Organizations

	Extensions
Architectural Technology Club	7342
Association of Information Technology Professionals	7408
Forsyth Tech Chapter of NC Student Nurses Association	7418
Future Advocates for Children Tomorrow	7309
International Cultural Exchange	7485
Medical Assisting Student Organization (MASO)	7362
Philosophical Society	7454
Student Medical Sonographer's Club	7437
Student Practical Nursing Association	7416

## Student Leadership

Alpha Mu Beta	7326
Sigma Theta Kappa Criminal Justice Club	7271
Flight Line Program	7326
Phi Theta Kappa	7365
Student Government Association	7326
Vocational-Technical Honor Society	7313

## Forsyth Tech Sports

Bowling League	7509
Coed Volleyball	7509
Golf Tournaments	7509
Men's Basketball	7509
Putt-Putt Golf Tournaments	7509
Women's Fastpitch Softball	7509



# Student Code of Conduct & Responsibilities

## Code of Conduct

The act of enrollment at Forsyth Tech includes an acceptance by the student of the rules of Forsyth Tech. By enrolling, the student accepts the obligation to assist in making Forsyth Tech an effective place to conduct a learning process and to engage in the pursuit of truth, the development of self, and the improvement of society. Each enrolled student is considered to be a responsible adult, and Forsyth Tech assumes and requires that men and women who enroll in the various programs will maintain standards of conduct appropriate to the status of students at Forsyth Tech.

Forsyth Tech has an inherent responsibility to maintain order on its campus.

Therefore, students may or shall be suspended or dismissed for behavior deemed incompatible with the mission, the regulation, or the responsibility of Forsyth Tech or deemed to be in violation of any of the provisions of the Code of Conduct as set forth herein.

Forsyth Tech recognizes the right of an enrolled student to receive a full opportunity to learn and develop, unfettered by any and all obstacles not conducive to a sound, fundamental educational program. To this end, Forsyth Tech recognizes, declares, and vests certain rights in each student enrolled at Forsyth Tech.

## Student Rights

### A. Legal Rights

All the rights and privileges guaranteed to every citizen by the Constitution of the United States and by the State of North Carolina shall not be denied any student.

Furthermore, Forsyth Tech shall adhere to all of the statutes of the United States and the State of North Carolina. Forsyth Tech has recognized the Student Government Association as the approved agency to voice students' opinions and speak on institutional policies concerning students' activities.

### B. Rights of the Learner

The instructor in the classroom and in conference shall encourage free discussion, inquiry, and expression. Student performance will be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards.

### C. Student Records

The Family Educational Rights and Privacy Act of 1974 (FERPA) provides safeguards regarding the confidentiality of and access to student records.

1. Students may review their educational records by making a written request to the coordinator of Records.
2. Student records will not be reviewed by third parties unless permission is obtained in writing from the student. Exceptions may be made for instructors and administrators if the information is for educational purposes. Exceptions may also be made for parents who claim the student as a dependent and for credentialing, auditing, or accrediting organizations. The vice president of Institutional Planning and Support Services will make the final decision concerning access to records.
3. Official transcripts will be issued only when a written request is received from the student or upon written authorization by a student to be released to a designated entity. Transcripts from high schools or other colleges will not be released.

#### **D. Freedom of Association**

Students are free to organize and join an association organized or existing to promote the student's curriculum or career interest. Student organizations must be approved by the Student Government Association in order to ensure Forsyth Tech's policies and procedures are adhered to and followed.

#### **E. Due Process**

Due process procedures are established to guarantee the right of hearing, a presentation of charges, evidence for charges, the right of confrontation by the questioning of witnesses, and the right to counsel by the accused student, if so requested by the student. Any student aggrieved by the violation of this Code of Conduct shall have the right of appeal to the Student Appeals Committee as hereinafter provided.

## **General Campus Rules**

The following is a general summary and classification of the major rules of student conduct, and any violation shall be considered a violation of this Code of Conduct. For purposes of Forsyth Tech rules and regulations, Forsyth Tech grounds are defined as any location owned, leased, rented, controlled, or otherwise occupied by Forsyth Tech or any division thereof.

#### **Rule 1. Disruption and Disorderly Conduct**

A student shall not engage directly or aid and abet in disorderly conduct which is intended to provoke violent retaliation or cause a breach of peace or which disrupts, disturbs, or interferes with the normal routine activities or teaching of students, or which disrupts, disturbs, or interferes with the peace, order, or discipline on Forsyth Tech grounds.

#### **Rule 2. Damage to or Destruction of Forsyth Tech Property**

A student shall not intentionally, willfully or wantonly cause, or attempt to cause, substantial damage to be done to Forsyth Tech property or shall not steal, or attempt to steal, Forsyth Tech property.

#### **Rule 3. Damage to or Destruction of Private Property**

A student shall not intentionally, willfully or wantonly cause, or attempt to cause, damage to private property of another or shall not steal, or attempt to steal, private property of another when on Forsyth Tech grounds or while attending a Forsyth Tech activity, function, or event held off Forsyth Tech grounds.

#### **Rule 4. Assault on or Verbal Abuse of Forsyth Tech Employee**

A student shall not intentionally cause, or attempt to cause, physical injury, verbal abuse or harassment or communicate a threat to a Forsyth Tech agent, servant, or employee at any time while such student is enrolled at Forsyth Tech.

#### **Rule 5. Assault or Verbal Abuse of Persons Other Than Employees**

A student shall not intentionally cause, or attempt to cause or threaten to cause, physical injury, verbal abuse or harassment or communicate a threat or direct any profane language toward any other student or Forsyth Tech guest, visitor, or invitee at any time while such student is enrolled at Forsyth Tech or while such student is on Forsyth Tech grounds or is attending a Forsyth Tech activity, function, or event held off Forsyth Tech grounds.

#### **Rule 6. Weapons and Dangerous Instrumentalities-NC General Statute 14-269.2**

It is unlawful for anyone to possess any weapon, whether openly or concealed, while on educational property. House Bill 1008: It is a felony to pos-



possess or carry a firearm or explosive device on educational property or to aid a person less than 18 years old to possess or carry a firearm or explosive device on educational property. This bill makes it a misdemeanor to cause, encourage, or aid a person less than 18 years old in taking or possessing other types of weapons on educational property. This bill also makes it a misdemeanor for any person who owns or possesses a firearm and who resides in the same premises as a person less than 18 years of age to store or leave the firearm in a condition that the firearm can be discharged and in a manner that the person knew or should have known that an unsupervised minor would be able to gain access to the firearm. In practice, then, this statute permits prosecution of anyone carrying any dangerous instrument in school, on school grounds, or at any school activity.

#### **Rule 7. Narcotics, Alcoholic Beverages, and Controlled Substances**

A student shall not knowingly or negligently own, possess, use, transport or be at any time under the influence of any narcotic drug, alcoholic beverage or any other controlled substance (as controlled substance is defined by the North Carolina General Statutes or 21 U.S.C. subsection 812) while on Forsyth Tech grounds or during the time when a student is participating in any Forsyth Tech activity, function, or event off Forsyth Tech grounds. Use of any drug authorized by medical prescription from a registered physician shall not be considered a violation of this rule. However, students shall be held strictly accountable for their behavior while under the influence of prescribed medicines.

#### **Rule 8. Classroom and Campus Activities**

A student shall comply with all directions of teachers, student teachers,

substitute teachers, teacher's aides, Forsyth Tech administrators, or authorized personnel during any time when the student is under the authority of Forsyth Tech personnel. A student on campus shall promptly identify himself to a Forsyth Tech official or campus public safety officer at all times upon reasonable request. A student shall appear before Forsyth Tech officials or disciplinary bodies when so directed. Any failure by any student to promptly and cheerfully obey or to abide by these regulations in this Rule 8 shall constitute a violation of this Code of Conduct.

#### **Rule 9. Academic Dishonesty, Cheating, Forgery, and Related Offenses**

It shall be a violation of Forsyth Tech Code of Conduct for a student to commit any one of the following acts:

1. Academic cheating, including, but not limited to, unauthorized copying of academic work of another, collaboration for use of notes or books on examinations without prior permission of the instructor.
2. Plagiarism or the intentional presentation of work of another without proper acknowledgment of the source.
3. Fabrication and falsification or the intentional misrepresentation of any information or citation in an academic exercise.
4. Submission of substantial portions of the same academic work for credit more than once without authorization.
5. Abuse of academic materials in the form of destruction, theft, or concealment of library or other resource material or of another student's notes or laboratory experiments.
6. Complicity in academic dishonesty in helping or attempting to help another student to commit an

act of academic dishonesty.

7. Furnishing of false information to any Forsyth Tech personnel including forgery, falsification, or fraudulent misuse of any documents, records, or identification cards.

#### **Rule 10. State and Federal Laws**

A student shall not violate any state or federal laws while on Forsyth Tech campuses or while attending a Forsyth Tech activity, function, or event off Forsyth Tech grounds.

#### **Rule 11. Student Attire Code**

Although Forsyth Tech students may dress informally, cleanliness and neatness of appearance must be maintained. Shirts and shoes are required at all times while the student is on campus or at all times while such student is attending a Forsyth Tech activity, function, or event off Forsyth Tech grounds. Special technical or vocational curriculums, such as the health curriculums, may require special attire for clinical or laboratory areas. A student shall not attend classes or laboratory work conducted in the clinical or laboratory areas if such student is in violation of the attire codes for such areas.

#### **Rule 12. Involuntary Psychological or Psychiatric Withdrawal**

It shall be grounds for dismissal if and when it shall be medically determined that a student poses a threat to the physical well-being of himself or others or if such student has a physical, mental or emotional condition of such a nature as to disturb or disrupt the normal and usual activities of other persons on campus. A student shall agree to have a psychiatric evaluation when it appears to the satisfaction of the president of Forsyth Tech, or her designee, that such examination is in the best interest of the student, or Forsyth Tech, or both.

#### **Rule 13. Children in Classrooms or Shop Areas**

Children are not allowed in classrooms or shop areas during class sessions, nor may they be left unattended in the library, in canteen areas, or on campus grounds.

#### **Rule 14. Roller Skating, Roller Blading and Skate Boarding**

For the safety and well-being of all Forsyth Tech students, employees, and visitors, no one is permitted to roller skate, roller blade, or skate board on sidewalks, parking lots, or any other college property.

#### **Violation of the Code of Conduct**

The following are the degrees of disciplinary action which may be taken as a result of violation of the Student Code of Conduct:

- A. **Verbal Warning** - A verbal warning that the specific behavior/condition will not be continued or repeated or further disciplinary action will be taken.
- B. **Warning** - A written notice to the student that continuation or repetition of specified conduct will be cause for further disciplinary action.
- C. **Disciplinary Probation** - A written reprimand to the student for violation of a specified rule, which may include exclusion from participation in a class or specified activities for a specified time as set forth in the notice.
- D. **Restitution** - Reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or compensate for damages.
- E. **Suspension** - Exclusion from class or classes and other student privileges or activities as set forth in the notice of suspension.
- F. **Dismissal or Expulsion** - Termination of student status for a definite period of time. At the end of this

period of expulsion, the student is eligible to apply through the vice president of Institutional Planning and Support Services for consideration for readmission.

- G. **Other** - Other types of discipline as set forth in campus rules and regulations consistent with the incident involved.

If as a result of a violation of the Student Code of Conduct a student is dismissed from class or classes, the student may receive a failing grade(s), and the disciplinary dismissal will be recorded on the student's transcript as an Administrative Withdrawal.

The conviction of a student of a criminal offense involving personal misconduct of a kind, which, if condemned by the college, would reflect dishonor or discredit on the college, shall be sufficient grounds for suspension or dismissal of such students.

### **Sexual Harassment Policy**

Forsyth Technical Community College is committed to promoting an atmosphere in which all members of the college--faculty, staff, and students--may work free of sexual harassment and provides for an orderly resolution of complaints of sexual harassment.

All members of the college are expected and requested to conduct themselves in such a way that contributes to an atmosphere free of sexual harassment. Sexual harassment of any employee or student is a violation of the policies of the college, as well as state and federal law, and will not be tolerated. Anyone who violates this policy will be disciplined in accordance with appropriate disciplinary procedures.

Sexual harassment is defined as deliberate, unsolicited, unwelcomed verbal and/or physical conduct of a sexual nature or with

sexual implications made by any employee or student when:

1. submission to such conduct is made either explicitly or implicitly a condition of an individual's employment or academic or student status; or
2. submission to or rejection of such conduct by an individual is used as the basis for employment decisions or decisions regarding a receipt of grades affecting that individual; or
3. such conduct has the purpose or effect of interfering with an individual's performance or creating an intimidating, hostile, or offensive environment in the workplace or the classroom.

Any student or employee who believes that he or she has been subjected to sexual harassment in violation of this policy should file a confidential complaint to the dean of Curriculum Development or the dean of Human Resources for employees. An investigation of these allegations will be conducted promptly and appropriate action taken.

Sexually harassing behavior may include offensive sexual flirtation, advances, propositions; continued or repeated abuse of a sexual nature; graphic verbal commentary about an individual's body; sexually degrading words used to describe an individual; and the display in the workplace or on campus of sexually suggestive objects or pictures.

### **Enforcement Procedures**

Student conduct on a Forsyth Tech campus or student conduct during a Forsyth Tech activity, function, or event held off Forsyth Tech grounds that violates federal and/or state and Forsyth Tech regulations may be dealt with in the following manner:

1. The student may be turned over to the civil authority and subjected only



to the penalties imposed by that authority; or

2. The student may be subjected to sanctions imposed both by the civil authorities and Forsyth Tech; or
3. The student may be subjected to sanctions imposed by Forsyth Tech, notwithstanding the fact the civil sanctions may not be imposed.

## **Disciplinary Procedures**

### **A. Instructional Areas**

Any instructor may request a student to leave a class, laboratory, shop, or clinical area when, in the opinion of the instructor, the student's conduct or personal demeanor disrupts normal classroom activities. If the student refuses to leave the class, the instructor may call campus public safety for assistance. The instructor, identifying the student and the cause for dismissal from class, will immediately notify in writing the division dean and the dean of Curriculum Development of actions taken.

The burden of requesting reentry to class, laboratory, or clinical areas will be upon the student involved. Request for reentry must be made to the instructor before the next class meeting. If the instructor decides that the student needs additional counseling before reentry, the instructor may require that the student meet with the division dean or the counseling staff for further discussion. If the division dean or the counseling staff decides that the student should be dismissed from the class or from Forsyth Tech, the instructor will send a written report (approved by the division dean) to the student, the vice president of Instructional Services, and the dean of Curriculum Development. The vice president will make the decision on dismissal when applicable and dismiss the student. The student will be

given a copy of the report and a written notification of the decision. If a student wishes to appeal the decision, the appeal must be made by writing the Student Appeals Committee within five days after receiving the dismissal notice.

### **B. Noninstructional Areas**

Any employee or student may file a written complaint for disciplinary action against any student enrolled at Forsyth Tech. The Public Safety Office may temporarily remove a student from campus when the student is jeopardizing the safety and security of faculty, staff, and/or the student body; a written complaint must then be filed. The complaint must be filed with the dean of Curriculum Development, who will promptly investigate the complaint and make a decision regarding warning, suspension, dismissal, or other disciplinary action. Both the complainant and the student involved will be notified in writing. If the student wishes to appeal the decision of the dean of Curriculum Development, the appeal must be made by writing the Student Appeals Committee within five days after receiving the notice of the decision.

## **Student Appeals Committee**

The Student Appeals Committee will hear the appeal of any student after the appeal process has been exhausted at the department and division levels for instructional areas or the dean of Curriculum Development for noninstructional areas. The Student Appeals Committee will hear the appeal of any student regarding the following:

1. discipline;
2. dismissal, except for academic standing;
3. admissions;
4. discriminatory practices, including

violations of the Americans with Disabilities Act (ADA);

5. sexual harassment.

The appeal will be heard under the following conditions within five working days of receipt of the confirmed appeal:

1. The student must submit a written statement containing factual and valid reasons for the appeal to the dean of Curriculum Development, who will forward the statement of appeal to the committee chairperson. The chairperson may return the appeal to the student to clarify, to add factual information, or to state reasons for the appeal; the chairperson may reject the appeal if policies and procedures have not been followed by the student or there is sound reason to reject the appeal.
2. The committee will confine itself to making a recommendation on the appeal question and not on the validity of existing policies of Forsyth Tech. The committee reserves the right to suggest to the president that a current policy be examined for continued value to Forsyth Tech.
3. The committee will submit its recommendation to the president, who will make a final decision and who will notify the parties involved.
4. *Residency Appeal:* In matters concerning residency classification, the dean of Curriculum Development will review prior decisions and all materials submitted. A decision will be rendered, and all parties will be notified in writing of the decision. *To appeal the dean's decision:* The next step in the appeal process is to the State Residency Committee. Procedures on state appeal are available in the office of the dean of Curriculum Development.
5. Records of the proceedings of the Student Appeals Committee are available upon written request to the dean

of Curriculum Development.

6. The student must obtain special permission from the vice president for Instructional Services to attend classes pending resolution of the case on appeal.

## **Definition of Academic Dishonesty**

The following are further explanations of violations of Rule 9.

### **A. Plagiarism:**

Definition: The intentional presentation of the work of another as one's own without proper acknowledgement of the source. The sole exception to the requirement of acknowledging sources is when the ideas or information are common knowledge.

Plagiarism as the result of misunderstanding or misapplying the rules of documentation may be unintentional, but it is still plagiarism. Plagiarism includes but is not limited to:

1. Copying from a written source, another student, or a data base (whether professional or nonprofessional; whether published or nonpublished) without proper citation in either a document or a speech.
2. Rewording (paraphrasing) or summarizing someone else's material without proper citation in a document or a speech.
3. Failing to cite word-for-word passages in a document or a speech.
4. Using purchased prewritten materials (including computer programs and files, research designs, distinctive figures of speech, ideas and images, or generally any information belonging to another) as the student's own or having someone else do the student's work.

### **B. Cheating:**

Definition: Intentional use or attempted use of unauthorized materials, information, notes, study aids, devices, or other assistance in any academic exercise. This definition

includes unauthorized communication of information during an academic exercise. Cheating includes but is not limited to:

1. Copying from another student's paper or receiving unauthorized assistance during a quiz, test, or examination.
2. Procuring, without authorization, tests or examinations before the scheduled exercise (including discussion of the substance of examinations and tests when it is expected it will not be discussed).
3. Copying reports, lab work, computer programs or files and the like from other students.
4. Collaborating on laboratory or computer work without authorization and without any indication of the nature and extent of the collaboration.
5. Sending a substitute to take an examination.
6. Receiving assistance in locating or using sources of information in an assignment where such assistance has been forbidden by the instructor.

**C. Fabrication and Falsification:**

Definition: Intentional alteration or invention of any information or citation in an academic exercise.

Falsification refers to the alteration of information, such as altering research, clinical or practicum data. Fabrication refers to the invention or counterfeiting of information, such as inventing research or clinical data or records. It would also include altering grade reports or submitting false records for tardiness and absences for scheduled academic exercises.

Altering a returned examination paper and seeking regrading also constitutes falsification.

**D. Multiple Submission:**

Definition: The submission of substantial portions of the same academic work (including oral reports) for

credit more than once without authorization, including submitting the same paper for credit in two courses without instructor permission.

**E. Abuse of Academic Materials:**

Definition: Intentional destruction, theft, or concealment of library or other resource material or of another student's notes or laboratory experiments.

**F. Complicity in Academic Dishonesty:**

Definition: Intentionally helping or attempting to help another to commit an act of academic dishonesty, such as those acts noted above.

Collaboration and sharing information are characteristics of academic communities. These become violations when they involve dishonesty. Students should seek clarification when in doubt.

## Policies

### Policy on Compliance with the Americans with Disabilities Act

A policy on compliance with the American with Disabilities Act is in effect at Forsyth Technical Community College and published in the *Employee Handbook*. The Board of Trustees of Forsyth Tech intends to comply with the requirements of the Americans with Disabilities Act and provide access to education for persons with disabilities as part of the mission of the institution. The director of Testing/Special Services/ADA for Forsyth Tech should be contacted with questions or concerns regarding the ADA.

### Infectious Disease Policy

Forsyth Tech is committed to ensuring, as far as possible, that each employee and student enjoy safe and healthful work and/or study conditions. To this end, the college offers the following information for students and employees.



This policy information presents the procedures to be used by Forsyth Tech to protect those students and employees who may be exposed to infectious diseases and bloodborne pathogens. Bloodborne pathogens include, but are not limited to, the Human Immunodeficiency Virus (HIV), which is the causative agent for Acquired Immune Deficiency Syndrome (AIDS), and Hepatitis B Virus (HBV). These procedures are based on written requirements published in the Federal Register (29 CFR 1919.1030).

Persons infected or reasonably believed to be infected with communicable diseases shall not be excluded from enrollment or employment or restricted in their access to the institution's services or facilities unless medically based judgments in individual cases establish that exclusion or restriction is necessary to the welfare of the individual, welfare of other members of the institution, or welfare of client, staff or students in a clinical area.

Persons who know or have a reasonable basis for believing that they have an infectious/communicable disease which may pose a threat to others have an obligation to conduct themselves in accordance with such knowledge so as to protect themselves and others. Accordingly, employees should report this information to the dean of Human Resources, and students should report to the dean of Curriculum Development. All information will be kept confidential except to those persons determined by the dean of Human Resources and dean of Curriculum Development as having a need to know. These persons will be informed after the individual is advised that such action will be taken.

It is the further declared policy of Forsyth Tech that its faculty, administration, and staff will conduct a continuing information program for all areas of Forsyth Tech personnel regarding communicable diseases and disabling illnesses.

## **Drug-Free Student Policy**

Drug use and abuse by students have become immediate concerns in our society. These problems are extremely complex with no easy solutions.

The users of drugs may impair the well being of all students and the educational environment and may damage Forsyth Tech property.

Therefore, it is the policy of Forsyth Tech that the unlawful manufacture, distribution, possession or use of a controlled substance is prohibited while on Forsyth Tech grounds.

1. Forsyth Tech does not differentiate between drug users and drug pushers or sellers. Any student who gives or in any way transfers or aids and abets in the transfer of a controlled substance to another person or sells or manufactures or aids and abets in the sale or manufacture of a controlled substance while on Forsyth Tech premises will be subject to disciplinary action up to and including suspension from school.
2. The term "controlled substance" means any drug listed in the North Carolina General Statutes or 21 U.S.C. subsection 812 and other federal regulations. Generally, these are drugs which have a high potential for abuse. Such drugs include, but are not limited to, heroin, marijuana, cocaine, PCP, and "crack." They also include legal drugs which are not prescribed by a licensed physician.
3. The counseling staff will conduct drug awareness and education workshops for students each semester. Individual counseling sessions and educational materials will be available in the Counseling Center at all times.
4. The counseling staff will include in orientation sessions reference to drug

policies, drug awareness, and sources for assistance.

5. The counseling staff will be available to lecture and assist instructional staff with class presentations to help educate students regarding the health risks of alcohol and drug abuse.
6. The counseling staff will have available referrals for treatment and more extensive assistance.
7. Student Development Services will biennially assess the institutional environment by reviewing data from Public Safety, the Counseling Center, instructors, and other community resources to guide educational program development for students.

### **Crime Awareness and Campus Security Act**

Staff, faculty, and students of Forsyth Tech are encouraged to report all criminal actions and other related emergencies to the Public Safety Office, located in the Carolina Annex. A special emergency number has been established. Staff, faculty, and students may dial Ext. 7325 from any campus telephone (excluding public pay telephones) and receive immediate assistance. Pay telephones provided throughout campus locations are available for students to dial 911 for immediate assistance. In addition, the college has installed red emergency phones throughout the campus. Upon picking up the receiver, the phone automatically dials the 7325 emergency number.

Upon receipt of a complaint, a public safety officer is assigned to the case. The complaint is documented, investigated, and processed by the investigating officer. If necessary, or where appropriate, an outside agency such as the Winston-Salem Police Department is contacted for assistance. Other staff of the college, such as the dean of Curriculum Development, may also become involved where appropriate.

All complaints are reviewed and, where appropriate, action is taken by the director of Public Safety. Further review and action may occur up through the chain of command, including the president and Board of Trustees.

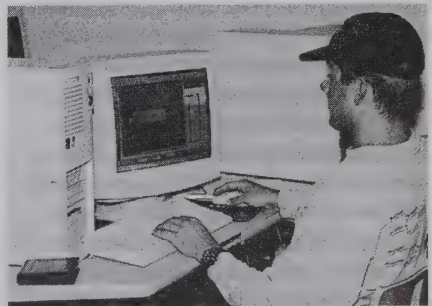
A public safety officer is on duty at all times regular classes are in session.

### **Computer Software Copyright Policy**

Forsyth Tech purchases licenses for use of a wide variety of copyrighted computer software. The college does not own the copyright on this software or its related documentation and, unless authorized by the software developer or publisher, does not have the right to reproduce it.

According to the United States Copyright Law, illegal reproduction of computer software can be subject to civil damages up to \$100,000 and criminal penalties including fines and imprisonment.

Forsyth Tech does not condone the illegal duplication of computer software or the use of illegally duplicated software. College employees and students shall use computer software only in accordance with its licensing agreements. Any employee or student who makes, acquires, or uses unauthorized copies of computer software shall be subject to disciplinary action.



# Corporate and Continuing Education

Corporate & Continuing Education Services of Forsyth Tech promotes the personal and professional development of individuals and employee groups by offering non-credit courses, seminars, and services. In addition to providing occupation-related and community service courses, it also offers adults the opportunity to earn a high school diploma or a General Educational Development (GED) certificate. Courses and seminars vary from a few hours in length to several hundred hours, depending on their purpose and content, and are conducted on campus and at other convenient locations. Courses and seminars for the general public are developed and advertised routinely. Others are developed and customized for the employee groups of client companies and, as a result, are not open to the general public. Corporate & Continuing Education instruction generally includes a combination of lecture, demonstration, and practical application and may be delivered in either a traditional or a distance learning classroom.

Corporate & Continuing Education offers a broad range of educational services, including basic skill and developmental assessments, GED testing, testing for professional licenses and certifications, training needs assessments, job task analyses, and work skill assessments. Services to promote business and industrial development are offered through six specialized programs: the Small Business Center, Focused Industrial Training, Occupational Extension, New and Expanding Industry, Human Resource Development and Workplace Literacy, and English as a Second Language. Other specialized serv-

ices are developed as needed to respond to the personal or professional development needs of Forsyth County and Stokes County residents.

Corporate & Continuing Education offers courses at facilities and college locations including the West Campus, the Forsyth Tech Fourth Street Downtown Center, the Forsyth Tech Fifth Street Library Center, the Mazie Woodruff Center, the Grady Swisher Center and the Main Campus. Courses are also conducted at the Forsyth Tech-Goodwill Adult Night Learning Center.

## Mission

The mission of Corporate & Continuing Education Services is to work in partnership with the community to identify and meet adult education and training needs for lifelong learning, economic development, and improved quality of life.

The general program objectives are:

- ▲ to provide expanded educational opportunities for adults who would not otherwise continue their education,
- ▲ to provide relatively inexpensive, convenient educational opportunities for adults regardless of educational background,
- ▲ to provide programs of vocational/technical education for employed and unemployed adults who need training or retraining,
- ▲ to provide short courses that will meet the general adult and community service needs of the people in the community,
- ▲ to provide requested vocational and technical training programs for new



and expanding industry in the Forsyth Tech service area and

- ▲ to provide small business development, educational programs, and services for establishing prospective businesses.

## **Admission Requirements**

Corporate & Continuing Education courses and seminars are generally for adults 18 years of age and older. However, individuals 16 and 17 years of age may enroll in some courses if they first obtain approval from the public school system. Some courses require a student application, and prospective students should inquire about admission requirements for specific programs of interest. Inquiries can be made at the Forsyth Tech West Campus.

## **Course Fees**

Most Corporate & Continuing Education courses have associated course fees; some do not. A registration fee, an equipment usage fee, and an insurance fee are some of the typical fees associated with courses and seminars. In addition, students may be required to purchase a textbook or to pay an instructional materials fee. If attending class on the college's Main or West campuses, or at the Swisher or Woodruff Centers, students will be required to purchase a Forsyth Tech parking sticker.

Some seminars, such as those of the Small Business Center, and some classes, such as Human Resource Development, Adult High School, Basic Education, and English as a Second Language, do not charge a registration fee.

Some individuals are exempt from paying registration fees. Volunteer firemen, fire department personnel, volunteer rescue and lifesaving department personnel, and local law enforcement officers are not required to pay registration fees for certification and occupation-related courses.

Individuals 65 years of age and older are also exempt from paying some registration fees.

## **CEU Credits**

Corporate & Continuing Education occupational extension courses are approved for Continuing Education Units. CEU credit is based upon the number of hours a course is scheduled to meet. One CEU is awarded for every ten hours, and any portion thereof, a person attends class. (For example, a course that meets for 22 hours awards 2.2 CEUs.)

## **Educational Services**

### **Assessment for Basic Employability Skills**

Forsyth Tech is licensed to provide Work Keys assessments for basic employability skills. Validated assessments are available in 8 skill areas:

Teamwork  
Listening  
Applied Technology  
Applied Mathematics  
Writing  
Reading  
Locating Information  
Observation

Work Keys is a national system for measuring basic employability skills. Developed by ACT, an international leader in workforce assessment, the Work Keys system can determine the skill requirements of a job and assess a person's skill level against those requirements. Companies can use Work Keys to identify qualified applicants for hire or to identify skill gaps in the current workforce. On-site classes and self study materials can be provided to help employees improve their basic skills. Work Keys assessments are a valuable tool in developing a qualified, well trained, and technically competent workforce.

## Basic Skills

It is often useful to determine the basic skill levels of employees prior to developing a customized training program.

Validated assessment instruments are used to identify the math, reading, language, and spelling competence of employees. The information gained can be used to determine if the basic skill levels of employees need to be upgraded for them to become fully job functional. The basic skill assessments can be done in either English or Spanish, and classes to help employees improve their basic skills can be conducted on-site.

## Customized Spanish

In this program, students learn only Spanish phrases, questions, and commands needed for specific purposes. There is no attempt to teach the whole language. It presents realistic situations and the specialized vocabulary that professionals need to communicate with Hispanics in the course of their daily work. No Spanish background is necessary. Each class includes personalized questions, grammar exercises, dialogue completions, role-plays, cultural aspects, and activities that provide students with numerous opportunities for practical applications in the workplace.

## Customized Training

Each customized training program is client-driven; that is, course content, schedule, methodology, and location are based on client needs and preferences. Training programs can be developed to upgrade the skills of existing employees or to recruit and train participants for potential employment with specific companies. Forsyth Tech's customized programs are developed to make a long-lasting contribution to employee growth and productivity.

## DACUM

DACUM is an acronym for **D**eveloping **A**

**C**urriculum. DACUM as used widely today is a unique, innovative, and very effective method of job, and/or occupational analysis. It is also very effective for conducting process and functional analysis. The DACUM analysis workshop involves a trained DACUM facilitator and a committee of 5-12 expert workers from the position, occupation, or other area of analysis. The profile chart which results from the usual two-day workshop is a detailed and graphic portrayal of the duties and tasks performed by the workers involved.

There are many reasons for using the DACUM process. The success of any company or organization is always affected by the quality of its employees. To produce and maintain a highly skilled workforce, schools, college, and companies must offer the highest quality of education and training possible to prepare present and future employees for the challenges they face.

The DACUM method is widely used in the United States, Canada, and several other countries simply because it is:

Highly effective

Quick

Low Cost

## Job Task Analyses

A multistep process, job task analyses are conducted to identify the tasks associated with specific jobs and the knowledge and skills needed for employees to perform the tasks adequately. Job task analyses provide insight into why some employees perform adequately while others perform inadequately and provide sound data for developing customized training programs.

## Training Needs Assessments

Obtaining input from managers and different employee groups about what they perceive as their training needs is an important first step in developing customized

training programs. The primary purpose of conducting a training needs assessment is to identify gaps between the current and desired levels of employee performance, knowledge, and skills. The secondary purpose is to gain an understanding of strategies that can be used to close the gap.

## Program Offerings

### Adult Basic Skills

The Adult Basic Skills program provides education in basic reading, writing, and math skills.

The primary objectives of the program are:

- ▲ To enable individuals to achieve greater independence in their personal lives,
- ▲ To enhance their ability to benefit from occupational training,
- ▲ To increase their opportunities for better and more rewarding jobs,
- ▲ To make them better able to meet their family and community responsibilities, and
- ▲ To help business and industry use the full capabilities of their workforce.

Adult Basic Education classes are held at various locations throughout Forsyth and Stokes counties. Classes are conducted during the day and evening hours. No registration fees are charged to the student. Some books and materials may be supplied free of charge.

### Adult High School Diploma

Forsyth Tech, in cooperation with the Winston-Salem/Forsyth County School System and the Stokes County School System, offers day and evening courses for high school credit to adult students who wish to obtain an adult high school diploma.

Adults take courses needed to satisfy NC high school graduation requirements. A passing score on the high school competency test is required for graduation. The program is designed for adults 18 years old or older.

There is no registration fee; however, students must furnish their own books and supplies.

### Adult Night Learning Center

The Adult Night Learning Center is a program conducted by Forsyth Tech and offered at Goodwill Industry's University Parkway facility. Its purpose is to provide cost-effective vocational training during the evening that will prepare individuals for entry-level positions or to take advantage of career advancement opportunities.

Programs are conducted Monday - Thursday, 6 to 9 p.m. The Center offers Career Tracks, Employability Skills courses, and Foundation Skills courses to prepare participants to obtain employment in occupations for which there are too few qualified applicants. Career Tracks are offered in health, manufacturing, retail, and office careers. For information call the Goodwill Industries' Career Planning Department at 724-3625 or Forsyth Tech at 723-0371, extension 7715.

### Apprenticeship

Apprenticeship programs consist of a prescribed series of courses an employee can complete to attain a high skill level in a specific occupation, such as tool and die making or electrical maintenance. Representatives from Forsyth Technical Community College, the NC Department of Labor, and the client company work together to develop an approved and registered apprenticeship program.

### Community Service Programs

The Community Service programs are designed to provide courses, seminars, and



activities that (1) contribute to the community's overall cultural, civic and intellectual growth; and (2) assist adults in the development of new skills or the upgrading of existing ones in their avocational, academic, and practical skills areas of interest.

The Community Service programs include:

**Academic Extension Courses -**

designed to serve the academic needs of adult citizens, including courses in humanities, mathematics and science, and social sciences. Some classes that fall into this category: foreign languages, sign language, creative writing.

**Practical Skills Courses -** designed to provide practical training for persons pursuing additional skills which are not considered their major or primary vocation, but may supplement income or may lead to employment. Some classes that fall into this category: cooking, quilting, sewing, woodcarving, picture framing and matting.

**Avocational Courses -** designed to focus on an individual's personal or leisure needs rather than their occupation, profession, or employment. Some classes that fall into this category: drawing, painting, crafts, photography, piano, stained glass, pottery.

## **Compensatory Education**

The Compensatory Education program provides educational opportunities that enable persons with mental handicaps resulting from developmental or environmental causes to function in society at a level which will allow them to reach their full potential and maintain mastered skills.

Areas within the program of study are:

- Community Living
- Consumer Education
- Language

- Leisure Education
- Health
- Math
- Social Science

Compensatory Education classes are held at various locations in Forsyth and Stokes counties as well as on the West Campus. No fees are charged to the student, and books and materials are supplied free of charge.

## **Computer Technology**

A wide variety of computer application courses is offered on a routine basis to the general public. Courses can also be arranged for employee groups so that company-specific applications can be taught.

## **Emergency Services**

**Emergency Medical Services:** Forsyth

Tech offers certification courses in all levels of Emergency Medical Services, ranging from the Emergency Medical Technician to the Paramedic. For individuals with an EMS certification, the college offers continuing education and refresher courses and has the capability of conducting specialty courses for rescue squads.

**Fire Service:** In addition to offering fire and safety-related courses for business and industry, Forsyth Tech also conducts basic through advanced firefighter and rescue training for fire departments in Forsyth and Stokes counties. A wide range of fire service continuing education and specialty courses is also available.

**Law Enforcement Training:** To prepare individuals for careers in law enforcement, Forsyth Tech offers certification courses ranging from detention officer training to basic law enforcement training. The college also conducts law enforcement specialty and continuing education

courses for private and educational security agencies as well as for city, county, state, and federal law enforcement agencies

### **Employee Health & Safety**

Forsyth Tech offers several courses in employee health and safety. The courses are approved by the appropriate agency; several are developed to specifically meet OSHA and/or occupational credentialing requirements. Upon successful completion of health-related courses, participants often receive a certificate. An official copy of course completion is also maintained on participant transcripts.

### **Employee & Organizational Effectiveness**

For organizations to be competitive, they must have employees who strive to improve work processes and enhance product quality. For employees to be effective, they need to know, in addition to technical skills, how to provide feedback in both written and oral form, participate in problem analysis and solving, work as a team member, and lead others in team or supervisory situations. They also need to understand the concepts of quality and continuous improvement and how to attain quality and customer satisfaction. The college offers a variety of courses in the field of employee and organizational effectiveness and draws on the expertise of experienced instructors to deliver customized programs. Classes are available in communication, customer service, leadership, management, quality management, and career development.

### **English as a Second Language (ESL)**

The ESL program provides instruction for foreign-born adults who have limited English proficiency. Students may attend seven levels of classes to acquire skills in listening, speaking, reading, writing, and comprehension of the English language,

and acculturation to the society of the United States. No registration fee.

### **Focused Industrial Training**

The Focused Industrial Training (FIT) program provides technical training for employees of manufacturing companies to enable them to stay abreast of changing technology. Courses are frequently customized for small groups of employees, and training is most frequently offered at the industrial site.

### **General Educational Development (GED) in English and Español**

The Tests of General Educational Development, developed by the American Council of Education for persons who have not graduated from high school, are designed to measure, as nearly as possible, the skills and concepts generally associated with four years of regular high school instruction.

Using a multiple-choice question format for each of the five tests (Writing Skills, Social Studies, Science, Interpreting Literature and the Arts, and Mathematics), as well as an essay for Writing Skills, the test battery corresponds to the general framework of most high school curriculums. The context of items attempts to measure skills relevant to adult experience, rather than the ability to remember facts, details, or precise definition. All fifty states, the District of Columbia, U.S. territories, ten Canadian provinces and territories, and several foreign countries use results from the GED tests as a basis for issuing high school credentials. These diplomas are official documents that are nearly always accepted as valid credentials by employers and directors of training programs. In addition, all community colleges and some four-year colleges and universities have admissions policies that permit GED test score reports to be accepted in lieu of complete high school transcripts.

Upon successful completion of the GED tests, a high school diploma equivalency is issued by the North Carolina Community College System. Forsyth Tech is one of the 83 official GED testing centers in the state and is the only one in Forsyth County.

Forsyth Tech offers GED Preparation classes at selected sites throughout Forsyth and Stokes counties. The GED tests are given by appointment only at Forsyth Tech's West Campus to adults 18 years old or older and to approved minors. There is a \$7.50 fee for taking the GED test.

### **Health Occupations**

Forsyth Tech offers courses to prepare individuals for entry-level positions in the health and emergency services fields. The college also offers a variety of continuing education courses to enable professionals to upgrade existing skills and to fulfill professional recertification and licensing requirements. All courses are conducted according to the guidelines of the appropriate state agency and meet the requirements for employment training and recertification/ licensing.

### **Human Resources Development (HRD)**

The mission of Forsyth Tech's Human Resources Development program is to strengthen the employment and educational opportunities of the county's residents who are unemployed or underemployed. The primary goal is to help these individuals develop the essential skills needed for securing and maintaining employment. All courses in the Human Resources Development program are offered free of charge. It is our goal to tailor the dates, times, and locations of our classes to meet the needs of the students who enroll.

### **Industrial Technology**

Industrial technology constantly changes,

so Forsyth Tech's industrial technology courses are continually updated to enable employees to learn the use of new equipment and processes. Most industrial technology courses are customized and conducted for the employees of specific companies because of the variance in equipment and processes used among companies. Some courses, however, are conducted according to certification, federal, or state guidelines to train company employees in specialized techniques, OSHA, and/or systems operations. Others are developed to meet the cross-sectional needs of particular industries, for example, metalworking or electrical maintenance.

### **Job Link Employability Lab**

Job readiness workshops and individualized services are available to those seeking entry-level positions in local businesses. The lab offers self-paced typing and GED courses and career counseling. Participants may also receive assistance with completing job applications, developing interviewing skills and preparing a resume. The Job Link employability Lab is located at the JobLink Career Center, 516 N. Trade St., Winston-Salem.

### **Languages & Cultures**

A variety of language courses including Occupational Spanish, English as a Second Language (ESL), and conversational French, German, Italian, and Spanish are offered to meet both professional and personal needs. Occupational Spanish can be customized to suit the special needs of a company or organization. Each class is client-driven; that is, course content, schedule times, methodology, class location, and length of study are based on client needs and preferences.

### **Licensing & Certification Courses**

Occupational licenses, certifications or registrations are required by the state of North Carolina in order to protect the general public's welfare and serve as legal



authorizations that the person may practice a particular occupation. To obtain an occupational license, certification or registration in North Carolina, individuals are required to meet particular educational and experience standards set by the specific licensing agency or board and the General Assembly.

Forsyth Tech is authorized to conduct certain licensing and certification courses required in North Carolina. In addition, state exam preparation courses are available, as well as annual recertifying courses and continuing education courses to meet requirements for maintaining licenses.

### **New and Expanding Industry**

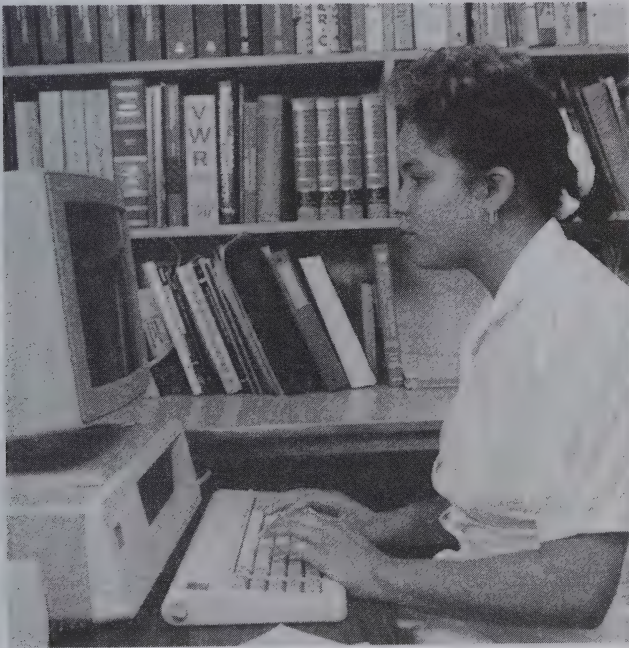
New and Expanding Industry employee training is conducted free of charge for expanding or new industries that plan to add a minimum of twelve new employees in a year. Training is for new employees only.

### **Preemployment Training**

Forsyth Tech conducts preemployment training programs for client companies to train a pool of qualified applicants for specific job vacancies. Companies can take applications and conduct interviews near the completion of the preemployment program.

### **Small Business Center**

The Small Business Center (SBC) provides counseling, information resources, and educational programs to assist current and prospective business owners with beginning or sustaining a business. The SBC is located at Forsyth Tech's Fourth Street Center, which is located in the Chamber building in downtown Winston-Salem. An appointment with the SBC director can be made by calling 631-1320.





# Curriculums





# CURRICULUM DESCRIPTIONS

## ASSOCIATE IN APPLIED SCIENCE DEGREE

The curriculums for the Associate in Applied Science degrees are technical in nature. Upon completion of a curriculum, the graduate will be awarded the associate in applied science degree. This degree is recognized nationally to indicate the successful completion of two years of education beyond the high school level.

The listing of courses for each curriculum is shown in the proper sequence. Applicants should plan to attend 21 or 24 consecutive months.

The College's purpose is to offer the technical courses which will prepare the graduate for immediate employment opportunities. Therefore, the ability to transfer to other institutions of higher education, and to transfer credit earned, will be determined by the receiving institution.

## ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREES

The College Transfer curriculum is designed to offer students an opportunity to take the first two years of a liberal arts college curriculum. The course work includes composition and literature, humanities, mathematics, natural and social sciences, and physical education. Students who maintain a grade average of C or better should be able to transfer these credits to a senior college or university and complete a bachelor's degree. The Associate in Arts curriculum concentrates heavily on the humanities and social sciences and is recommended for those students who plan to continue with a bachelor's degree in one of these areas. The Associate in Science curriculum concentrates on mathematics and the physical and life sciences and is recommended for those students who plan to continue with a bachelor's degree in one of these areas.

## DIPLOMA

The diploma curriculums are practical in nature and are designed to prepare the student for immediate employment opportunities in a skilled trade or health field. All curriculums are designed for one year of intensive study. (Evening curriculums require approximately two years.) Upon completion of a curriculum,

the graduate will be awarded the State Vocational Diploma. Some general education courses required in each diploma curriculum may not transfer to associate's (or higher) degree levels of instruction.

## ADVANCE PLACEMENT PROGRAMS AND TECHNICAL SPECIALTY DIPLOMA

These are advanced level programs available to those who have completed an A.A.S. degree in a specified program or who meet registry requirements in selected allied health fields.

## CERTIFICATE

Certificate curriculums are educational plans of study drawn from existing curriculums for persons who desire to improve their job skills in a particular area of interest.

The programs are also designed to meet the needs of employers in upgrading the occupational skills of their employees. Each certificate program may be tailored toward the requirements of a specific business, industry, or organization.

## DEVELOPMENTAL EDUCATION

This program offers a series of courses for preparation, remediation, and guidance for students who, for a variety of reasons, do not meet the specific entrance requirements for the regular curriculums of their choice. Students who do meet the minimum entrance requirements but whose previous academic records indicate that they may have difficulty in successfully completing their curriculums are also advised to complete the necessary course work in the Developmental Education program.

The students' academic program will be individually designed to meet their specific preparatory and remedial needs. The courses will be selected from the developmental offerings and from technical and/or vocational credit courses.

**SAMPLE COURSE LISTING**

**Cl Lb Cn Cr**

RTT 239	RTT Clinical Ed V	<u>0</u>	<u>2</u>	<u>18</u>	<u>7</u>
		<b>0</b>	<b>2</b>	<b>18</b>	<b>7</b>

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**KEY TO SAMPLE COURSE LISTING**

**RTT** .....Course Prefix

**239** .....Course Number

**RTT Clinical Ed V** .....Course Title

**Cl**  
**0** ...Number of Classroom Hours Per Week

**Lb**  
**2** ...Number of Laboratory Hours Per Week

**Cn**  
**18** ....Number of Clinical Hours Per Week

**Cr**  
**7** .....Number of Semester Hours Credit

**0 2 18 7** .....Total Number of  
Contact Hours Per Week

# ACCOUNTING

A 25 10 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

### FALL - 1st Year

ACC 120	Principles of Accounting I	3	2	4
ENG 111	Expository Writing	3	0	3
MAT 115	Mathematical Models	2	2	3
OST 131	Keyboarding	1	2	2
PSY 150	General Psychology	<u>3</u>	<u>0</u>	<u>3</u>
		<b>12</b>	<b>6</b>	<b>15</b>

### SPRING - 1st Year

ACC 121	Principles of Accounting II	3	2	4
ACC 129	Individual Income Taxes	2	2	3
CIS 111	Basic PC Literacy	1	2	2
ENG 114	Professional Research and Reporting	3	0	3
----	Humanities/Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>12</b>	<b>6</b>	<b>15</b>

### SUMMER - 1st Year

ACC 130	Business Income Taxes	2	2	3
ACC 220	Intermediate Accounting I	3	2	4
BUS 115	Business Law I	<u>3</u>	<u>0</u>	<u>3</u>
		<b>8</b>	<b>4</b>	<b>10</b>

### FALL - 2nd Year

ACC 221	Intermediate Accounting II	3	2	4
ACC 225	Cost Accounting	3	0	3
ACC 269	Auditing	3	0	3
BUS 116	Business Law II	3	0	3
CIS 120	Spreadsheet I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>14</b>	<b>4</b>	<b>16</b>

### SPRING - 2nd Year

ACC 150	Computerized General Ledger	1	2	2
ACC 226	Managerial Accounting	3	0	3
ACC 250	Advanced Accounting	3	0	3
ACC 279	Advanced Auditing	3	0	3
ECO 252	Principles of Macroeconomics	<u>3</u>	<u>0</u>	<u>3</u>
		<b>13</b>	<b>2</b>	<b>14</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:  
High school accounting recommended.

### Program Information:

Graduates can continue their education at various colleges and universities in the local area and then sit for the CPA Exam.

**TOTAL CREDIT HOURS: 70**



# ACCOUNTING

A 25 10 0

A.A.S.

Evening

## CURRICULUM DESCRIPTION

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

### FALL - 1st Year

ACC 120 Principles of Accounting I	3	2	4	
ENG 111 Expository Writing	<u>3</u>	<u>0</u>	<u>3</u>	
	<b>6</b>	<b>2</b>	<b>7</b>	

### SPRING - 1st Year

ACC 121 Principles of Accounting II	3	2	4	
OST 131 Keyboarding	<u>1</u>	<u>2</u>	<u>2</u>	
	<b>4</b>	<b>4</b>	<b>6</b>	

### SUMMER - 1st Year

ACC 220 Intermediate Accounting I	<u>3</u>	<u>2</u>	<u>4</u>	
	<b>3</b>	<b>2</b>	<b>4</b>	

### FALL - 2nd Year

ACC 221 Intermediate Accounting II	3	2	4	
ENG 114 Professional Research and Reporting	<u>3</u>	<u>0</u>	<u>3</u>	
	<b>6</b>	<b>2</b>	<b>7</b>	

### SPRING - 2nd Year

ACC 129 Individual Income Taxes	2	2	3	
MAT 115 Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>	
	<b>4</b>	<b>4</b>	<b>6</b>	

### SUMMER - 2nd Year

ACC 130 Business Income Taxes	<u>2</u>	<u>2</u>	<u>3</u>	
	<b>2</b>	<b>2</b>	<b>3</b>	

### FALL - 3rd Year

ACC 225 Cost Accounting	3	0	3	
CIS 111 Basic PC Literacy	<u>1</u>	<u>2</u>	<u>2</u>	
	<b>4</b>	<b>2</b>	<b>5</b>	

### SPRING - 3rd Year

ACC 226 Managerial Accounting	3	0	3	
BUS 115 Business Law I	<u>3</u>	<u>0</u>	<u>3</u>	
	<b>6</b>	<b>0</b>	<b>6</b>	

### SUMMER - 3rd Year

BUS 116 Business Law II	3	0	3	
PSY 150 General Psychology	<u>3</u>	<u>0</u>	<u>3</u>	
	<b>6</b>	<b>0</b>	<b>6</b>	

### FALL - 4th Year

ACC 150 Computerized General Ledger	1	2	2	
ACC 269 Auditing	<u>3</u>	<u>0</u>	<u>3</u>	
	<b>4</b>	<b>2</b>	<b>5</b>	

### SPRING - 4th Year

ACC 250 Advanced Accounting	3	0	3	
ACC 279 Advanced Auditing	<u>3</u>	<u>0</u>	<u>3</u>	
	<b>6</b>	<b>0</b>	<b>6</b>	

### SUMMER - 4th Year

ECO 252 Principles of Macroeconomics	<u>3</u>	<u>0</u>	<u>3</u>	
	<b>3</b>	<b>0</b>	<b>3</b>	

### FALL - 5th Year

CIS 120 Spreadsheet I	2	2	3	
----- Humanities/Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>	
	<b>5</b>	<b>2</b>	<b>6</b>	

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:  
High school accounting recommended.

*Continued on next page.*

**Program Information:**

Graduates can continue their education at various colleges and universities in the local area and then sit for the CPA Exam.

**TOTAL CREDIT HOURS: 70**

# ACCOUNTING

D 25 10 0

Diploma

Day

## CURRICULUM DESCRIPTION

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

High school accounting recommended.

**TOTAL CREDIT HOURS: 37**

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

ACC 120 Principles of Accounting I	3	2	4
BUS 115 Business Law I	3	0	3
CIS 111 Basic PC Literacy	1	2	2
ENG 111 Expository Writing	3	0	3
OST 131 Keyboarding	<u>1</u>	<u>2</u>	<u>2</u>
	<b>11</b>	<b>6</b>	<b>14</b>

### SPRING

ACC 121 Principles of Accounting II	3	2	4
ACC 129 Individual Income Taxes	2	2	3
BUS 116 Business Law II	3	0	3
MAT 115 Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
	<b>10</b>	<b>6</b>	<b>13</b>

### SUMMER

ACC 220 Intermediate Accounting I	3	2	4
ACC 130 Business Income Taxes	2	2	3
CIS 120 Spreadsheet I	<u>2</u>	<u>2</u>	<u>3</u>
	<b>7</b>	<b>6</b>	<b>10</b>



# ACCOUNTING

D 25 10 0

Diploma

Evening

## CURRICULUM DESCRIPTION

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL - 1st Year

ACC 120 Principles of Accounting I	3	2	4
ENG 111 Expository Writing	<u>3</u>	<u>0</u>	<u>3</u>
	<b>6</b>	<b>2</b>	<b>7</b>

### SPRING - 1st Year

ACC 121 Principles of Accounting II	3	2	4
ACC 129 Individual Income Taxes	<u>2</u>	<u>2</u>	<u>3</u>
	<b>5</b>	<b>4</b>	<b>7</b>

### SUMMER - 1st Year

OST 131 Keyboarding	1	2	2
ACC 130 Business Income Taxes	<u>2</u>	<u>2</u>	<u>3</u>
	<b>3</b>	<b>4</b>	<b>5</b>

### FALL - 2nd Year

CIS 111 Basic PC Literacy	1	2	2
MAT 115 Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
	<b>3</b>	<b>4</b>	<b>5</b>

### SPRING - 2nd Year

BUS 115 Business Law I	3	0	3
CIS 120 Spreadsheet I	<u>2</u>	<u>2</u>	<u>3</u>
	<b>5</b>	<b>2</b>	<b>6</b>

### SUMMER - 2nd Year

BUS 116 Business Law II	3	0	3
ACC 220 Intermediate Accounting I	<u>3</u>	<u>2</u>	<u>4</u>
	<b>6</b>	<b>2</b>	<b>7</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

High school accounting recommended.

**TOTAL CREDIT HOURS: 37**

# AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY

D 35 10 0

Diploma

Day

## CURRICULUM DESCRIPTION

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. In addition, the A.A.S. degree covers residential building codes, residential system sizing, and advanced comfort systems.\*

Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems. A.A.S. degree graduates should be able to demonstrate an understanding of system selection and balance, and advanced systems.\*

\*Forsyth Tech offers this curriculum at the diploma level only.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

AHR 110 Intro to Refrigeration	2	6	5
AHR 111 HVACR Electricity	2	2	3
AHR 112 Heating Technology	2	4	4
MAT 101 Applied Mathematics I	2	2	3
PHY 102 Fund. of Physics II	3	2	4
	11	16	19

### SPRING

AHR 113 Comfort Cooling Systems	2	4	4
AHR 114 Heat Pump Technology	2	4	4
AHR 130 HVAC Controls	2	2	3
ENG 101 Applied Communications I	3	0	3
WLD 112 Basic Welding Processes	1	3	2
	10	13	16

## SUMMER

AHR 160 Refrigerant Certification	1	0	1
AHR 212 Advanced Comfort Systems	2	6	4
AHR 250 HVAC Systems Diagnostics	0	4	2
ELC 128 Intro to PLC	2	3	3
	5	13	10

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

One unit of algebra recommended.

**TOTAL CREDIT HOURS: 45**

# AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY

D 35 10 0

Diploma

Evening

## CURRICULUM DESCRIPTION

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. In addition, the A.A.S. degree covers residential building codes, residential system sizing, and advanced comfort systems.\*

Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems. A.A.S. degree graduates should be able to demonstrate an understanding of system selection and balance, and advanced systems.\*

\*Forsyth Tech offers this curriculum at the diploma level only.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	CL	Lb	Cr

### FALL - 1st Year

AHR 110 Intro to Refrigeration	2	6	5
AHR 111 HVACR Electricity	2	2	3
MAT 101 Applied Mathematics I	<u>2</u>	<u>2</u>	<u>3</u>
	<b>6</b>	<b>10</b>	<b>11</b>

### SPRING - 1st Year

AHR 112 Heating Technology	2	4	4
AHR 113 Comfort Cooling Systems	2	4	4
PHY 102 Fund. of Physics II	<u>3</u>	<u>2</u>	<u>4</u>
	<b>7</b>	<b>10</b>	<b>12</b>

### SUMMER - 1st Year

AHR 114 Heat Pump Technology	2	4	4
AHR 130 HVAC Controls	<u>2</u>	<u>2</u>	<u>3</u>
	<b>4</b>	<b>6</b>	<b>7</b>

### FALL - 2nd Year

AHR 212 Advanced Comfort Systems	2	6	4
AHR 250 HVAC Systems Diagnostics	0	4	2
ENG 101 Applied Communications I	<u>3</u>	<u>0</u>	<u>3</u>
	<b>5</b>	<b>10</b>	<b>9</b>

## SPRING - 2nd Year

AHR 160 Refrigerant Certification	1	0	1
ELC 128 Intro to PLC	2	3	3
WLD 112 Basic Welding Processes	<u>1</u>	<u>3</u>	<u>2</u>
	<b>4</b>	<b>6</b>	<b>6</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

One unit of algebra recommended.

**TOTAL CREDIT HOURS: 45**



# ARCHITECTURAL TECHNOLOGY

A 40 10 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

The Architectural Technology curriculum provides individuals with knowledge and skills that will lead to employment and advancement in the field of architectural technology. Technical courses are included which will enable the graduate to advance into related areas of work as job experience is obtained or to continue toward an advanced degree in an associated field of technology.

Architectural technicians translate the architect's design sketches into complete and accurate plans and drawings for construction purposes. The technician will be involved in work requiring a knowledge of drafting, construction materials, mechanical and structural systems, estimating, building codes, and specifications.

Initial employment opportunities exist with architectural and engineering firms, private utilities, contractors, and municipal governments.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

### FALL - 1st Year

ARC 111	Intro to Arch. Tech.	1	6	3
ARC 112	Const. Mats & Methods	3	2	4
ARC 250	Survey of Architecture	3	0	3
ENG 111	Expository Writing	3	0	3
MAT 121	Algebra/Trigonometry I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>12</b>	<b>10</b>	<b>16</b>

### SPRING - 1st Year

ARC 113	Residential Arch. Tech	1	6	3
ARC 114	Architectural CAD	1	3	2
ENG 114	Professional Research and Reporting	3	0	3
MAT 122	Algebra/Trigonometry II	2	2	3
PHY 131	Physics - Mechanics	<u>3</u>	<u>2</u>	<u>4</u>
		<b>10</b>	<b>13</b>	<b>15</b>

### SUMMER - 1st Year

ARC 131	Building Codes	2	2	3
ARC 211	Light Const. Tech.	1	6	3
ARC 221	Arch. 3-D CAD	1	4	3
ARC 230	Environmental Sys.	<u>3</u>	<u>3</u>	<u>4</u>
		<b>7</b>	<b>15</b>	<b>13</b>

## FALL - 2nd Year

ARC 141	Elem. Structures for Arc	4	0	4
ARC 212	Commercial Const. Tech	1	6	3
ARC 231	Arch. Presentation	2	4	4
----	----	Humanities/ Fine Arts		
	Elective (See your advisor.)	3	0	3
----	----	Social/Behavioral Science		
	Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>13</b>	<b>10</b>	<b>17</b>

## SPRING - 2nd Year

ARC 213	Design Project	2	6	4
ARC 235	Arch. Portfolio	2	3	3
ARC 240	Site Planning	2	2	3
ARC 264	Digital Architecture	<u>1</u>	<u>3</u>	<u>2</u>
		<b>7</b>	<b>14</b>	<b>12</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. One unit of algebra.
2. High school physics recommended.

**TOTAL CREDIT HOURS: 73**

# ARCHITECTURAL TECHNOLOGY / CAD / DIGITAL IMAGING

C 40 10 0

Certificate

Day and Evening

## CURRICULUM DESCRIPTION

The CAD/Digital imaging certificate is under the curriculum title Architectural Technology. This certificate incorporates all of the CAD and digital classes offered as part of the Architectural Technology A.A.S. degree program. Students completing the certificate program can receive credit for their course work towards an Associate of Applied Science in Architectural Technology.

Employment opportunities might include Architectural or engineering CAD operator, imaging specialist in the area of marketing and content creation, or web designer. Additional opportunities could include other disciplines requiring the use of raster and vector image manipulation.

### Program Outcomes:

- Produce 2D CAD construction documents
- Create 3D digital architectural models
- Solve problems
- Produce a physical and electronic portfolio
- Work efficiently with digital technology
- Create digital movies and animations
- Use desk top publishing and photo manipulation techniques

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

ARC 114 Architectural CAD	1	3	2
ARC 221 Architectural 3-D CAD	1	4	3
	2	7	5

### SPRING

ARC 231 Architectural Presentation	2	4	4
	2	4	4

## SUMMER

ARC 235 Architectural Portfolio	2	3	3
<b>OR</b>			
ARC 114A Architectural CAD Lab	(0)	(3)	(1)
<b>AND</b>			
ARC 220 Adv. Architect CAD	(1)	(3)	(2)
	2	3	3
	(1)	(6)	(3)

**TOTAL CREDIT HOURS: 12**

## ASSOCIATE DEGREE NURSING

**A 45 10 0**

**A.A.S.**

**Day**

### CURRICULUM DESCRIPTION

The Associate Degree Nursing curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings.

Courses will include content related to the nurse's role as provider of nursing care, as manager of care, as member of the discipline of nursing, and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a registered nurse. Employment opportunities include hospitals, long term care facilities, clinics, physicians' offices, industry, and community agencies.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

#### FALL ADMISSION

##### FALL - 1st Year

BIO 168 Anatomy and Physiology I	3	3	0	4
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CIS 111 Basic PC Literacy	1	2	0	2
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##### OR

CIS 113 Computer Basics	(0)	(2)	(0)	(1)
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NUR 110 Nursing I	5	3	6	8
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NUR 117 Pharmacology	1	3	0	2
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PSY 150 General Psychology	3	0	0	3
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**13 11 6 19**

**(12)(11) (6)(18)**

##### SPRING - 1st Year

BIO 169 Anatomy and Physiology II	3	3	0	4
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ENG 111 Expository Writing	3	0	0	3
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NUR 120 Nursing II	5	3	6	8
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PSY 241 Developmental Psych	3	0	0	3
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##### SUMMER - 1st Year

ENG 115 Oral Communication	3	0	0	3
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NUR 130 Nursing III	4	3	6	7
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### FALL - 2nd Year

NUR 210 Nursing IV	5	3	12	10
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---- Humanities/ Fine Arts				
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Elective (See your advisor.)

**3 0 0 3**

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### SPRING - 2nd Year

NUR 220 Nursing V	4	3	15	10
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NUR 244 Issues & Trends	2	0	0	2
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**6 3 15 12**

**SPRING ADMISSION** - When a Spring ADN admission occurs, the following **CURRICULUM BY SEMESTERS** is outlined.

### SPRING - 1st Year

CIS 111 Basic PC Literacy	1	2	0	2
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##### OR

CIS 113 Computer Basics	(0)	(2)	(0)	(1)
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BIO 168 Anatomy and Physiology I	3	3	0	4
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NUR 110 Nursing I	5	3	6	8
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NUR 117 Pharmacology	1	3	0	2
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PSY 150 General Psychology	3	0	0	3
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**13 11 6 19**

**(12)(11) (6)(18)**

### SUMMER - 1st Year

BIO 169 Anatomy and Physiology II	3	3	0	4
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NUR 120 Nursing II	5	3	6	8
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PSY 241 Developmental Psych	3	0	0	3
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**11 6 6 15**

### FALL - 1st Year

ENG 111 Expository Writing	3	0	0	3
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ENG 115 Oral Communication	3	0	0	3
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NUR 130 Nursing III	4	3	6	7
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**10 3 6 13**

### SPRING - 2nd Year

NUR 210 Nursing IV	5	3	12	10
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---- Humanities/ Fine Arts				
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Elective (See your advisor.)

**3 0 0 3**

**8 3 12 13**

*Continued on next page.*



## SUMMER - 2nd Year

No required NUR courses

## FALL - 2nd Year

NUR 220 Nursing V	4	3	15	10
NUR 244 Issues & Trends	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
	6	3	15	12

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Written recommendations completed on the college approved form.
3. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
4. Completion of program orientation requirements.
5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
6. Completion of the **Forsyth Tech Student Medical Form.**

### Program Information:

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3-year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. A grade of C or better is required in all NUR courses or the student will be dismissed. Readmission may be possible but requires reapplication and approval by the College.

**TOTAL CREDIT HOURS: 72 or (71)**

# AUTOBODY REPAIR

D 60 10 0

Diploma

Day

## CURRICULUM DESCRIPTION

The Autobody Repair curriculum provides training in the use of equipment and materials of the autobody repair trade. The student studies the construction of the automobile body and techniques of autobody repairing, rebuilding, and refinishing.

The course work includes autobody fundamentals, industry overview, and safety. Students will perform hands-on repairs in the areas of non-structural and structural repairs, mig welding, plastics and adhesives, refinishing, and other related areas.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive body and refinishing industry. Graduates may find employment with franchised independent garages, or they may become self-employed.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

AUB 111	Painting & Refinishing I	2	6	4
AUB 121	Non Structural Damage I	1	4	3
AUB 131	Structural Damage I	2	4	4
AUB 134	Autobody MIG Welding	1	4	3
AUB 136	Plastics & Adhesives	1	4	3
AUB 160	Body Shop Operations	1	0	1
MAT 101	Applied Mathematics I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>10</b>	<b>24</b>	<b>21</b>

### SPRING

AUB 112	Painting & Refinishing II	2	6	4
AUB 122	Non Structural Damage II	2	6	4
AUB 132	Structural Damage II	2	6	4
CIS 111	Basic PC Literacy	<u>1</u>	<u>2</u>	<u>2</u>
		<b>7</b>	<b>20</b>	<b>14</b>

### SUMMER

AUB 150	Automotive Detailing	1	3	2
AUB 114	Special Finishes	1	2	2
AUB 162	Autobody Estimating	1	2	2
ENG 101	Applied Communications I	<u>3</u>	<u>0</u>	<u>3</u>
		<b>6</b>	<b>7</b>	<b>9</b>

**TOTAL CREDIT HOURS: 44**

## **AUTOBODY REPAIR**

**C 60 10 0**

**Certificate**

**Day and Evening**

### **CURRICULUM DESCRIPTION**

The Autobody Repair curriculum provides training in the use of equipment and materials of the autobody repair trade. The student studies the construction of the automobile body and techniques of autobody repairing, rebuilding, and refinishing.

The course work includes autobody fundamentals, industry overview, and safety. Students will perform hands-on repairs in the areas of non-structural and structural repairs, mig welding, plastics and adhesives, refinishing, and other related areas.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive body and refinishing industry. Graduates may find employment with franchised independent garages, or they may become self-employed.

### **CURRICULUM BY SEMESTERS**

<b>Course Title</b>	<b>Hours Per Week</b>		
	<b>Cl</b>	<b>Lb</b>	<b>Cr</b>

#### **FALL**

AUB 111	Painting & Refinishing I	2	6	4
AUB 121	Non Structural Damage I	1	4	3
		3	10	7

#### **SPRING**

AUB 112	Painting & Refinishing II	2	6	4
AUB 131	Structural Damage I	2	4	4
		4	10	8

**TOTAL CREDIT HOURS: 15**



# AUTOMATION/ROBOTICS TECHNOLOGY

A 40 12 0
A.A.S.
Day

## CURRICULUM DESCRIPTION

The Automation/Robotics curriculum is designed to prepare technicians to install, program, operate, maintain, service and repair automated manufacturing systems, including robots.

The course of study will include fundamentals of mechanical, electrical, and electronic technology with specific application of robots, controlling devices, and electromechanical equipment in automated manufacturing systems.

The graduate of this curriculum will be prepared for employment in industries that utilize robots and other electromechanical devices in automated manufacturing.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

### FALL - 1st Year

CIS 111	Basic PC Literacy	1	2	2
EGR 131	Intro to Elect. Tech.	1	2	2
ELC 131	AC/DC Electricity	4	3	5
ENG 111	Expository Writing	3	0	3
MAT 121	Algebra/Trigonometry I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>11</b>	<b>9</b>	<b>15</b>

### SPRING - 1st Year

ELN 131	Elec. Devices/Circuits	3	3	4
ENG 114	Professional Research and Reporting	3	0	3
MAT 122	Algebra/Trigonometry II	2	2	3
PHY 131	Physics - Mechanics	3	2	4
----	Social/Behavioral Science			
	Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>14</b>	<b>7</b>	<b>17</b>

### SUMMER - 1st Year

ATR 112	Intro to Automation	2	3	3
ELN 132	Linear Integrated Circuits	3	3	4
ELN 231	Industrial Controls	<u>2</u>	<u>3</u>	<u>3</u>
		<b>7</b>	<b>9</b>	<b>10</b>

### FALL - 2nd Year

ATR 211	Robot Programming	2	3	3
ATR 213	Intro to PLC's	3	3	4
ATR 215	Sensors and Transducers	2	3	3
ELN 133	Digital	3	2	4
HYD 110	Hydraulics	<u>2</u>	<u>3</u>	<u>3</u>
		<b>12</b>	<b>14</b>	<b>17</b>

### SPRING - 2nd Year

ATR 214	Advanced PLC's	3	3	4
ATR 218	CIM	2	3	3
ATR 219	Aut. System Troublest.	1	3	2
EGR 285	Inter. Project	1	3	2
----	Humanities/ Fine Arts			
	Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>10</b>	<b>12</b>	<b>14</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. One unit of algebra.
2. High school physics recommended.

**TOTAL CREDIT HOURS: 73**

# **AUTOMOTIVE SYSTEMS TECHNOLOGY**

**D 60 16 0**

**Diploma**

**Day**

## **CURRICULUM DESCRIPTION**

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

## **CURRICULUM BY SEMESTERS**

<b>Course Title</b>	<b>Hours Per Week</b>		
	<b>Cl</b>	<b>Lb</b>	<b>Cr</b>

### **FALL**

AUT 110	Intro to Auto Technology	2	2	3
AUT 141	Suspension and Steering Systems	2	4	4
AUT 151	Brake Systems	2	2	3
AUT 152	Brake Systems Lab	0	2	1
AUT 161	Electrical Systems	<u>2</u>	<u>6</u>	<u>4</u>
		<b>8</b>	<b>16</b>	<b>15</b>

### **SPRING**

AUT 115	Engine Fundamentals	2	3	3
AUT 116	Engine Repair	1	3	2
AUT 164	Automotive Electronics	2	2	3
AUT 181	Engine Perform.- Electrical	2	3	3
AUT 183	Engine Perform.-Fuel	<u>2</u>	<u>3</u>	<u>3</u>
		<b>9</b>	<b>14</b>	<b>14</b>

### **SUMMER**

AUT 171	Heating and Air Cond.	2	3	3
AUT 231	Manual Drive Trains/Axles	2	3	3
ENG 101	Applied Communications I	3	0	3
MAT 101	Applied Mathematics I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>9</b>	<b>8</b>	<b>12</b>

**TOTAL CREDIT HOURS: 41**

# AUTOMOTIVE SYSTEMS TECHNOLOGY

## D 60 16 0                      Diploma                      Evening

### CURRICULUM DESCRIPTION

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

### SPRING - 2nd Year

AUT 164	Automotive Electronics	2	2	3
AUT 181	Engine Performance - Electrical	2	3	3
AUT 183	Engine Performance - Fuel	<u>2</u>	<u>3</u>	<u>3</u>
		<b>6</b>	<b>8</b>	<b>9</b>

**TOTAL CREDIT HOURS: 41**

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	CL Lb Cr

#### FALL - 1st Year

AUT 110	Intro to Auto Technology	2	2	3
AUT 151	Brake Systems	2	2	3
AUT 152	Brake Systems Lab	<u>0</u>	<u>2</u>	<u>1</u>
		<b>4</b>	<b>6</b>	<b>7</b>

#### SPRING - 1st Year

AUT 141	Suspension and Steering Systems	2	4	4
AUT 161	Electrical Systems	2	6	4
MAT 101	Applied Mathematics I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>6</b>	<b>12</b>	<b>11</b>

#### SUMMER - 1st Year

AUT 115	Engine Fundamentals	2	3	3
AUT 116	Engine Repair	<u>1</u>	<u>3</u>	<u>2</u>
		<b>3</b>	<b>6</b>	<b>5</b>

#### FALL - 2nd Year

AUT 171	Heating and Air Conditioning	2	3	3
AUT 231	Manual Drive Trains/Axles	2	3	3
ENG 101	Applied Communications I	<u>3</u>	<u>0</u>	<u>3</u>
		<b>7</b>	<b>6</b>	<b>9</b>



# AUTOMOTIVE SYSTEMS TECHNOLOGY

## Race Car Performance Concentration

A 60 16 A

A.A.S.

Day

### CURRICULUM DESCRIPTION

Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cr

#### FALL - 1st Year

AUT 141 Suspension and Steering	2 4 4
AUT 151 Brakes	2 2 3
AUT 161 Electrical Systems	2 6 4
AUT 251 Intro to Racing	3 0 3
WLD 110 Cutting Processes	1 3 2
	<b>10 15 16</b>

#### SPRING - 1st Year

AUT 115 Engine Fundamentals	2 3 3
AUT 116 Engine Repair	1 3 2
AUT 164 Auto Electronics	2 2 3
AUT 181 Engine Performance - Electrical	2 3 3
AUT 183 Engine Performance - Fuel	2 3 3
MAT 115 Mathematical Models	2 2 3
	<b>11 16 17</b>

### SUMMER - 1st Year

AUB 134 Autobody MIG Welding	1 4 3
AUT 171 Heating and Air Conditioning	2 3 3
ENG 111 Expository Writing	3 0 3
---- ---- Social/Behavioral Science Elective (See your advisor.)	3 0 3
	<b>9 7 12</b>

### FALL - 2nd Year

AUT 252 Racing Engine Prep	3 9 6
AUT 253 Race Engine Accessories	2 4 4
ENG 115 Oral Communications	3 0 3
---- ---- Humanities/ Fine Arts Elective (See your advisor.)	3 0 3
	<b>11 13 16</b>

### SPRING - 2nd Year

AUT 254 Chassis Fabrication	3 9 6
AUT 255 Sheet Metal Fabrication	1 6 3
AUT 256 Setting Up the Race Car	4 4 6
	<b>8 19 15</b>

**TOTAL CREDIT HOURS: 76**

# BUSINESS ADMINISTRATION

A 25 12 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week	CI	Lb	Cr
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### FALL - 1st Year

BUS 110	Intro to Business	3	0	3
BUS 115	Business Law I	3	0	3
ENG 111	Expository Writing	3	0	3
MAT 115	Mathematical Models	2	2	3
OST 131	Keyboarding	<u>1</u>	<u>2</u>	<u>2</u>
		<b>12</b>	<b>4</b>	<b>14</b>

### SPRING - 1st Year

BUS 116	Business Law II	3	0	3
BUS 121	Business Math	2	2	3
BUS 137	Principles of Management	3	0	3
CIS 111	Basic PC Literacy	1	2	2
ENG 114	Professional Research and Reporting	<u>3</u>	<u>0</u>	<u>3</u>
		<b>12</b>	<b>4</b>	<b>14</b>

### SUMMER - 1st Year

CIS 112	Windows	1	2	2
ECO 252	Principles of Macroeconomics	3	0	3
ENG 115	Oral Communication	<u>3</u>	<u>0</u>	<u>3</u>
		<b>7</b>	<b>2</b>	<b>8</b>

### FALL - 2nd Year

ACC 120	Accounting Principles I	3	2	4
CIS 120	Spreadsheet I	2	2	3
MKT 120	Principles of Marketing	3	0	3
PSY 150	Psychology	3	0	3
----	Humanities/ Fine Arts			
	Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>14</b>	<b>4</b>	<b>16</b>

### SPRING - 2nd Year

ACC 121	Accounting Principles II	3	2	4
ACC 129	Individual Income Tax	2	2	3
ACC 150	Computerized General Ledger	1	2	2
BUS 125	Personal Finance	3	0	3
BUS 270	Professional Development	<u>3</u>	<u>0</u>	<u>3</u>
		<b>12</b>	<b>6</b>	<b>15</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I recommended.
2. High school keyboarding recommended.
3. High school accounting recommended.

**TOTAL CREDIT HOURS: 67**

# BUSINESS ADMINISTRATION

**A 25 12 0**

**A.A.S.**

**Evening**

## CURRICULUM DESCRIPTION

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cr

### FALL - 1st Year

BUS 110 Intro to Business	3 0 3
BUS 115 Business Law I	3 0 3
ENG 111 Expository Writing	<u>3</u> <u>0</u> <u>3</u>
	<b>9 0 9</b>

### SPRING - 1st Year

BUS 116 Business Law II	3 0 3
MAT 115 Mathematical Models	2 2 3
OST 131 Keyboarding	<u>1</u> <u>2</u> <u>2</u>
	<b>6 4 8</b>

### SUMMER - 1st Year

BUS 121 Business Math	2 2 3
BUS 137 Principles of Management	3 0 3
CIS 111 Basic PC Literacy	<u>1</u> <u>2</u> <u>2</u>
	<b>6 4 8</b>

### FALL - 2nd Year

CIS 112 Windows	1 2 2
ECO 252 Principles of Macroeconomics	3 0 3
ENG 114 Professional Research and Reporting	<u>3</u> <u>0</u> <u>3</u>
	<b>7 2 8</b>

### SPRING - 2nd Year

ACC 120 Accounting Principles I	3 2 4
CIS 120 Spreadsheet I	2 2 3
ENG 115 Oral Communication	<u>3</u> <u>0</u> <u>3</u>
	<b>8 4 10</b>

### SUMMER - 2nd Year

MKT120 Principles of Marketing	3 0 3
PSY 150 Psychology	3 0 3
---- Humanities/ Fine Arts	
Elective (See your advisor.)	<u>3</u> <u>0</u> <u>3</u>
	<b>9 0 9</b>

### FALL - 3rd Year

ACC 121 Accounting Principles II	3 2 4
ACC 129 Individual Income Tax	<u>2</u> <u>2</u> <u>3</u>
	<b>5 4 7</b>

### SPRING - 3rd Year

ACC 150 Computerized General Ledger	1 2 2
BUS 125 Personal Finance	3 0 3
BUS 270 Professional Development	<u>3</u> <u>0</u> <u>3</u>
	<b>7 2 8</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I recommended.
2. High school keyboarding recommended.
3. High school accounting recommended.

**TOTAL CREDIT HOURS: 67**



# BUSINESS ADMINISTRATION

## Banking and Finance Concentration

A 25 12 A

A.A.S.

Day

### CURRICULUM DESCRIPTION

Banking and Finance is a concentration under the curriculum title of Business Administration. This curriculum is designed to prepare individuals for a career with various financial institutions and other businesses.

Course work includes principles of banking, money and banking, lending fundamentals, banking and business law, and practices in the areas of marketing, management, accounting, and economics.

Graduates should qualify for a variety of entry-level jobs in banking and finance. Also available are employment opportunities with insurance, brokerage and mortgage companies, and governmental lending agencies.

### FALL - 2nd Year

ACC 120	Principles of Accounting I	3	2	4
AIB 141	Law and Banking	3	0	3
AIB 152	Trust Business	3	0	3
BUS 115	Business Law I	3	0	3
BUS 137	Principles of Management	3	0	3
		15	2	16

### SPRING - 2nd Year

ACC 121	Principles of Accounting II	3	2	4
AIB 245	Bank Investments	3	0	3
AIB 254	Securities Processing	3	0	3
MKT 120	Principles of Marketing	3	0	3
----	Humanities/ Fine Arts			
	Elective (See your advisor.)	3	0	3
		15	2	16

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week	CI	Lb	Cr
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#### FALL - 1st Year

AIB 110	Principles of Banking	3	0	3
ENG 111	Expository Writing	3	0	3
MAT 115	Mathematical Models	2	2	3
OST 131	Keyboarding	1	2	2
PSY 150	Psychology	3	0	3
		12	4	14

#### SPRING - 1st Year

ACC 129	Individual Income Tax	2	2	3
AIB 131	Fundamentals of Bank Lending	3	0	3
AIB 222	Money and Banking	3	0	3
CIS 111	Basic PC Literacy	1	2	2
ENG 114	Professional Research and Reporting	3	0	3
		12	4	14

#### SUMMER - 1st Year

CIS 112	Windows	1	2	2
ECO 252	Principles of Macroeconomics	3	0	3
ENG 115	Oral Communications	3	0	3
		7	2	8

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I recommended.
2. High school keyboarding recommended.
3. High school accounting recommended.

**TOTAL CREDIT HOURS: 68**

# BUSINESS ADMINISTRATION

## Banking and Finance Concentration

A 25 12 A

A.A.S.

Evening

### CURRICULUM DESCRIPTION

Banking and Finance is a concentration under the curriculum title of Business Administration. This curriculum is designed to prepare individuals for a career with various financial institutions and other businesses.

Course work includes principles of banking, money and banking, lending fundamentals, banking and business law, and practices in the areas of marketing, management, accounting, and economics.

Graduates should qualify for a variety of entry-level jobs in banking and finance. Also available are employment opportunities with insurance, brokerage and mortgage companies, and governmental lending agencies.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

#### FALL - 1st Year

AIB 110 Principles of Banking	3	0	3
ENG 111 Expository Writing	3	0	3
OST 131 Keyboarding	<u>1</u>	<u>2</u>	<u>2</u>
	<b>7</b>	<b>2</b>	<b>8</b>

#### SPRING - 1st Year

AIB 131 Fundamentals of Bank Lending	3	0	3
ENG 114 Professional Research and Reporting	3	0	3
MAT 115 Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
	<b>8</b>	<b>2</b>	<b>9</b>

#### SUMMER - 1st Year

ACC 129 Individual Income Tax	2	2	3
AIB 222 Money and Banking	3	0	3
PSY 150 Psychology	<u>3</u>	<u>0</u>	<u>3</u>
	<b>8</b>	<b>2</b>	<b>9</b>

#### FALL - 2nd Year

CIS 111 Basic PC Literacy	1	2	2
ECO 252 Principles of Macroeconomics	3	0	3
ENG 115 Oral Communications	<u>3</u>	<u>0</u>	<u>3</u>
	<b>7</b>	<b>2</b>	<b>8</b>

### SPRING - 2nd Year

AIB 141 Law and Banking	3	0	3
BUS 137 Principles of Management	3	0	3
CIS 112 Windows	<u>1</u>	<u>2</u>	<u>2</u>
	<b>7</b>	<b>2</b>	<b>8</b>

### SUMMER - 2nd Year

AIB 152 Trust Business	3	0	3
BUS 115 Business Law I	3	0	3
---- Humanities/ Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
	<b>9</b>	<b>0</b>	<b>9</b>

### FALL - 3rd Year

ACC 120 Principles of Accounting I	3	2	4
AIB 245 Bank Investments	3	0	3
MKT 120 Principles of Marketing	<u>3</u>	<u>0</u>	<u>3</u>
	<b>9</b>	<b>2</b>	<b>10</b>

### SPRING - 3rd Year

ACC 121 Principles of Accounting II	3	2	4
AIB 254 Securities Processing	<u>3</u>	<u>0</u>	<u>3</u>
	<b>6</b>	<b>2</b>	<b>7</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I recommended.
2. High school keyboarding recommended.
3. High school accounting recommended.

**TOTAL CREDIT HOURS: 68**

## BUSINESS ADMINISTRATION

### Customer Service

C 25 12 B

Certificate

Day and Evening

#### CURRICULUM DESCRIPTION

Customer Service is a certificate under the curriculum title Business Administration. This curriculum provides a broad foundation of communication and interpersonal skills designed to prepare the individual for customer contact roles within a business organization.

Employment opportunities include customer services representative, customer services manager, credit and collection specialist, retail sales, authorization analyst, telephone sales representative in both service- and production-oriented businesses, and cost center customer representative.

#### Program Outcomes:

- communicate effectively
- demonstrate social adeptness
- be professional
- understand customers
- solve problems
- apply information
- work efficiently
- influence sales

#### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
	Cl	Lb	Cr	

#### FALL

CIS 111 Basic PC Literacy	1	2	2	
ENG 115 Oral Communication	3	0	3	
MKT 223 Customer Service	<u>3</u>	<u>0</u>	<u>3</u>	
	7	2	8	

#### SPRING

BUS 121 Business Math	2	2	3	
BUS 270 Professional Development	<u>3</u>	<u>0</u>	<u>3</u>	
	5	2	6	

**TOTAL CREDIT HOURS: 14**



## **BUSINESS ADMINISTRATION**

### **International Business**

**A 25 12 D**

**A.A.S.**

**Day and Evening**

**This curriculum is under development. Pending State Board approval, it will be offered as a Forsyth Technical Community College curriculum beginning Fall 2000.**

### **CURRICULUM DESCRIPTION**

International Business is a concentration under the curriculum title of Business Administration. This curriculum prepares individuals for positions in international business through studies in business, social science, foreign language, and specialized courses in international marketing, law, economics, and trade practices.

Students will be expected to demonstrate language skills; a knowledge of geographic, political, and cultural differences; the ability to process import/export documentation; and a knowledge of international economics and business practices.

Employment opportunities are available in import/export departments, freight forwarder companies, customs house brokerage firms, international banking, state and federal government organizations, world organizations, and other internationally active businesses.

# CARDIOVASCULAR SONOGRAPHY

A 45 16 0

A.A.S.

Day

Pending State Board approval, this curriculum will be offered as a Forsyth Technical Community College curriculum beginning Fall 2000.

## CURRICULUM DESCRIPTION

The Cardiovascular Sonography curriculum provides the individual with the knowledge and skills necessary to acquire, process, and evaluate the human heart and vascular structures. A cardiovascular sonographer uses high frequency sound waves to produce images of the heart and vascular structures.

Course work includes effective communication and patient care skills combined with a knowledge of physics, human anatomy, physiology and pathology, all of which are essential to obtaining high quality sonographic images.

Graduates may be eligible to apply to the American Registry of Diagnostic Medical Sonographers for examinations in physics, cardiovascular physics, vascular physics, and adult echocardiography. Graduates may find employment in hospitals, physicians' offices, mobile services, and educational institutions.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

### FALL - 1st Year

BIO 163 Basic Anatomy & Physiology	4	2	0	5
CVS 160 Clinical Education I	0	0	15	5
CVS 165 Intro to Cardiovascular Sonog	1	3	0	2
ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3
<b>OR</b>				
MAT 140 Survey of Mathematics	(3)	(0)	(0)	(3)
	10	7	15	18
	(11)	(5)	(15)	(18)

### SPRING - 1st Year

CVS 161 Clinical Education II	0	0	24	8
CVS 163 Echocardiography I	3	2	0	4
ENG 112 Argument Based Research	3	0	0	3
<b>OR</b>				
ENG 113 Literature Based Research	(3)	(0)	(0)	(3)
<b>OR</b>				
ENG 114 Professional Research & Reporting	(3)	(0)	(0)	(3)
SON 111 Sonographic Physics	3	3	0	4
	9	5	24	19

### SUMMER - 1st Year

CVS 162 Clinical Education III	0	0	15	5
CVS 164 Echocardiography II	3	2	0	4
	3	2	15	9

### FALL - 2nd Year

CVS 260 Clinical Education IV	0	0	24	8
CVS 279 Cardiovascular Physics	3	2	0	4
PSY 150 General Psychology	3	0	0	3
SON 274 Neurosonology	2	0	0	2
	8	2	24	17

### SPRING - 2nd Year

CVS 261 Clinical Education V	0	0	24	8
SON 250 Vascular Sonography	1	3	0	2
----- Humanities/Fine Arts				
Elective (See your advisor.)	3	0	0	3
	4	3	24	13

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra. Effective for Fall 2000 admissions, successful completion of a physics course prior to the first semester of program enrollment is required.
2. Written recommendations completed on the college approval form.
3. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
4. Completion of program orientation requirements which may include observational hours prior to acceptance.
5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech

*Continued on next page.*

and listed as program course requirements.

6. Completion of the **Forsyth Tech Student Medical Form.**

**Program Information:**

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, SON and CVS prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

**TOTAL CREDIT HOURS: 75**



# CARDIOVASCULAR SONOGRAPHY

D 45 16 0

Diploma

Day

Pending State Board approval, this curriculum will be offered as a Forsyth Technical Community College curriculum beginning Fall 2000.

## CURRICULUM DESCRIPTION

The Cardiovascular Sonography curriculum provides the individual with the knowledge and skills necessary to acquire, process, and evaluate the human heart and vascular structures. A cardiovascular sonographer uses high frequency sound waves to produce images of the heart and vascular structures.

Course work includes effective communication and patient care skills combined with a knowledge of physics, human anatomy, physiology and pathology, all of which are essential to obtaining high quality sonographic images.

Graduates may be eligible to apply to the American Registry of Diagnostic Medical Sonographers for examinations in physics, cardiovascular physics, vascular physics, and adult echocardiography. Graduates may find employment in hospitals, physicians' offices, mobile services, and educational institutions.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr	

### FALL

CVS 160 Clinical Education I	0	0	15	5
CVS 163 Echocardiography I	3	2	0	4
CVS 165 Intro to Cardiovascular Sonog	1	3	0	2
ENG 111 Expository Writing	3	0	0	3
SON 274 Neurosonology	2	0	0	2
	9	5	15	16

### SPRING

CVS 161 Clinical Education II	0	0	24	8
CVS 164 Echocardiography II	3	2	0	4
SON 111 Sonographic Physics	3	3	0	4
SON 250 Vascular Sonography	1	3	0	2
	7	8	24	18

## SUMMER

CVS 162 Clinical Education III	0	0	15	5
CVS 279 Cardiovascular Physics	3	2	0	4
ENG 112 Argument Based Research	3	0	0	3
OR				
ENG 113 Literature Based Research				
OR	(3)	(0)	(0)	(3)
ENG 114 Professional Research & Reporting	(3)	(0)	(0)	(3)
	6	2	15	12

**TOTAL CREDIT HOURS: 46**

# CARDIOVASCULAR/ VASCULAR INTERVENTIONAL TECHNOLOGY

D 45 14 0

Technical Specialty Diploma

Day

## CURRICULUM DESCRIPTION

The Cardiovascular/Vascular Interventional Technology curriculum teaches students to use specialized equipment to visualize vascular structures and to assist physicians in diagnostic and interventional procedures. *Individuals entering this curriculum must be registered or registry eligible radiologic technologists by the ARRT.*

The technologist, through academic and clinical studies, is prepared to provide quality patient care and professional communication skills while performing scheduled and emergency angiographic studies utilizing sterile technique, advanced radiographic and specialty equipment, and radiation protection techniques.

Graduates of this program may be eligible to sit for the American Registry of Radiologic Technologists Advanced Level Examination in Cardiovascular Interventional Technology. Technologists may find employment in medical facilities where vascular, cardiovascular, and/or interventional imaging procedures are performed.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr	
<b>FALL</b>					
CIT 211 Patient Care	3	0	0	0	3
CIT 212 Angio Equipment and Supplies	3	0	0	0	3
CIT 214 Vascular Imaging I	3	0	0	0	3
CIT 230 CIT Clinical Practicum I	0	0	23	7	
	9	0	23	16	

## SPRING

BIO 163 Basic Anat. and Physiology*	(4)	(2)	(0)	(5)	
<b>OR</b>					
BIO 271 Pathophysiology	3	0	0	0	3
CIT 213 Radiographic Pharmacology	3	0	0	0	3
CIT 224 Vascular Imaging II	3	0	0	0	3
CIT 240 CIT Clinical Practicum II	0	0	23	7	
	9	0	23	16	
	(10)	(2)	(23)	(18)	

## SUMMER

CIT 250 CIT Clinical Practicum III	0	0	20	8	
CIT 260 CIT Topics	2	0	0	0	2
ENG 111 Expository Writing**	3	0	0	0	3
<b>OR (CHOICE OF ONE)</b>					
Eng 112 Argument-Based Research	(3)	(0)	(0)	(3)	
ENG 113 Literature-Based Research	(3)	(0)	(0)	(3)	
ENG 114 Professional Research and Reporting	(3)	(0)	(0)	(3)	
	5	0	20	13	

\* If a student has credit for BIO 163 at time of program entry, then BIO 271 will be required to meet the general education requirement.

\*\* If a student has credit for ENG 111 at time of program entry, then ENG 112, 113, or 114 will be required to meet the general education requirement.

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Written recommendations completed on the college approved form.
3. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
4. Completion of program orientation requirements which may include observational hours prior to acceptance.
5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
6. Completion of the **Forsyth Tech Student Medical Form.**

## Program Information:

This program has limited enrollment. Students are chosen by a selective admissions process. This may be based on placement test scores, past performance in high school or college courses to include biology, communication, and algebra. Individuals must meet registry requirements for the ARRT. Any work experience and additional training is

*Continued on next page.*

helpful and pertinent information for admission into this program. Any training, such as, EMT, CNA, health care technician or paramedic will be considered favorable in the selection process. This curriculum requires enthusiasm, motivation and good health to meet requirements for the diploma issued. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, CIT prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

Cardiovascular Interventional Technology is considered to be a safe profession in terms of radiation exposure; however, special limits have been established for occupationally exposed declared pregnant women to insure that the probability of birth defects is negligible. A copy of the program's pregnancy policy is included in the Cardiovascular Interventional Program Student Handbook and is available to anyone upon request.

**TOTAL CREDIT HOURS: 45 (47)**



# CARPENTRY

## Diploma

**D 35 18 0**

**Day**

### CURRICULUM DESCRIPTION

The Carpentry curriculum is designed to train students to construct residential structures using standard building materials and hand and power tools. Carpentry skills and a general knowledge of residential construction will also be taught.

Course work includes footings and foundations, framing, interior and exterior trim, cabinetry, blueprint reading, residential planning and estimating, and other related topics. Students will develop skills through hands-on participation during lab and at job sites. Students are responsible for their own transportation to and from job sites.

Graduates should qualify for employment in the residential building construction field as rough carpenters, framing carpenters, roofers, maintenance carpenters, and other related job titles.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

#### FALL

BPR 130	Blueprint Reading/Const.	1	2	2
CAR 110	Introduction to Carpentry	2	0	2
CAR 111	Carpentry I	3	15	8
CAR 114	Residential Building Codes	<u>3</u>	<u>0</u>	<u>3</u>
		<b>9</b>	<b>17</b>	<b>15</b>

#### SPRING

CAR 112	Carpentry II	3	15	8
CAR 115	Res. Planning/Estimating	3	0	3
MAT 101	Applied Mathematics I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>8</b>	<b>17</b>	<b>14</b>

#### SUMMER

CAR 113	Carpentry III	3	9	6
ENG 101	Applied Communications I	<u>3</u>	<u>0</u>	<u>3</u>
		<b>6</b>	<b>9</b>	<b>9</b>

**TOTAL CREDIT HOURS: 38**

# CARPENTRY

## Framing Certificate

### Certificate

**C 35 18 0**

**Day**

### CURRICULUM DESCRIPTION

The Carpentry curriculum is designed to train students to construct residential structures using standard building materials and hand and power tools. Carpentry skills and a general knowledge of residential construction will also be taught.

Course work includes footings and foundations, framing, interior and exterior trim, cabinetry, blueprint reading, residential planning and estimating, and other related topics. Students will develop skills through hands-on participation during lab and at job sites. Students are responsible for their own transportation to and from job sites.

Graduates should qualify for employment in the residential building construction field as rough carpenters, framing carpenters, roofers, maintenance carpenters, and other related job titles.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr
<b>FALL</b>			
CAR 111 Carpentry I	<u>3</u>	<u>15</u>	<u>8</u>
	3	15	8

### SPRING

CAR 112 Carpentry II	<u>3</u>	<u>15</u>	<u>8</u>
	3	15	8

**TOTAL CREDIT HOURS: 16**

# COLLEGE TRANSFER - ASSOCIATE IN ARTS

A 10 10 0

A.A.

Day and Evening

## CURRICULUM DESCRIPTION

The College Transfer curriculum is designed to offer students an opportunity to take the first two years of a liberal arts college curriculum. The course work includes composition and literature, humanities, mathematics, natural and social sciences, and physical education. Students who maintain a grade average of C or better should be able to transfer these credits to a senior college or university and complete a bachelor's degree. The Associate in Arts curriculum concentrates on the humanities and social sciences and is recommended for those students who plan to continue with a bachelor's degree in one of these areas.

## CURRICULUM COURSES

Course Title	Hours Per Week
	Cl Lb Cr

### GENERAL EDUCATION CORE .....44

(See 1 through 5 below)

#### 1. English .....6

ENG 111	Expository Writing			
	(required)	3	0	3

ENG 112	Argument-Based			
	Research	3	0	3

OR

ENG 113	Lit.-Based Research	3	0	3
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#### 2. Humanities/Fine Arts .....12

Select 4 courses from at least 3 disciplines.

At least 1 literature course required.

ART 111	Art Appreciation	3	0	3
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ENG 231	American Literature I	3	0	3
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ENG 232	American Literature II	3	0	3
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ENG 241	British Literature I	3	0	3
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ENG 242	British Literature II	3	0	3
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FRE 111	Elementary French I	3	0	3
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FRE 112	Elementary French II	3	0	3
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MUS 110	Music Appreciation	3	0	3
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PHI 215	Philosophical Issues	3	0	3
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PHI 240	Introduction to Ethics	3	0	3
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REL 110	World Religions	3	0	3
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SPA 111	Elementary Spanish I	3	0	3
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SPA 112	Elementary Spanish II	3	0	3
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#### 3. Social/Behavioral Sciences .....12

Select 4 courses from at least 3 disciplines.

At least 1 history course required.

ANT 210	General Anthropology	3	0	3
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ANT 220	Cultural Anthropology	3	0	3
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ECO 151	Survey of Economics	3	0	3
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ECO 251	Prin. of Microeconomics	3	0	3
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ECO 252	Prin. of Macroeconomics	3	0	3
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HIS 121	Western Civilization I	3	0	3
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HIS 122	Western Civilization II	3	0	3
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HIS 131	American History I	3	0	3
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HIS 132	American History II	3	0	3
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POL 120	American Government	3	0	3
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PSY 150	General Psychology	3	0	3
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PSY 241	Developmental			
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	Psychology	3	0	3
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SOC 210	Intro. to Sociology	3	0	3
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SOC 213	Soc. of the Family	3	0	3
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#### 4. Natural Sciences .....8

Select two courses, including accompanying laboratory work, from the list below.

AST 111	Descriptive Astronomy	3	0	3
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AST 111A	Desc. Astronomy Lab	0	2	1
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BIO 111	General Biology I	3	3	4
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BIO 112	General Biology II	3	3	4
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CHM131	Introduction to			
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	Chemistry	3	0	3
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CHM131A	Introduction to			
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	Chemistry Lab	0	3	1
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CHM151	General Chemistry I	3	3	4
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CHM152	General Chemistry II	3	3	4
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PHY 110	Conceptual Physics	3	0	3
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PSY 110A	Conceptual Physics	0	2	1
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PHY 151	College Physics I	3	2	4
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PHY 152	College Physics II	3	2	4
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#### 5. Mathematics .....6

Select at least one course from list A.

**Mathematics (A)**

MAT 140	Survey of Mathematics	3	0	3
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MAT 161	College Algebra	3	0	3
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The other course may be selected from list B.

**Mathematics (B)**

CIS 115	Intro to Prog & Logic	2	2	3
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MAT 151	Statistics I	3	0	3
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MAT 162	College Trigonometry	3	0	3
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MAT 165	Finite Mathematics	3	0	3
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MAT 263	Brief Calculus	3	0	3
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**OTHER REQUIRED HOURS . . . . .20-21**

Select any general education and professional courses approved for College Transfer. Must include:

PED 110	Fit and Well for Life	1	2	2
-----	----- One additional PED course	0	2	1
CIS 110	Intro to Computers	2	2	3
COM110	Intro to Communications	3	0	3
	<b>OR</b>			
COM120	Interpersonal Comm	3	0	3
	<b>OR</b>			
COM231	Public Speaking	3	0	3

The other 12 hours may be selected from any course not used in the 44 (SHC) of general education core or from approved electives for the college transfer program. These courses are listed below:

ACC 120 and 121
BIO 120, 130, 163, 168, 169, 175, and 271
BUS 110 and 115
CHM251 and 252
ENG 125, 126, 131, 262, and 273
HIS 111, 112, 151, 251 and 252
HUM 110, 121, 150, 160, and 170
MAT 151A, 271, 272, and 273
PED 113, 114, 115, 116, 117, 118, 125, 126, 127, 128, 129, 130, 131, 132, 133, 139, 140, 143, 144, 145, 146, 152, 153, 181, and 240
PHY 251 and 252
POL 130
PSY 275 and 281
REL 211, 212, and 221
SOC 215
SPA 161, 211, and 212

**TOTAL CREDIT HOURS: 64 Minimum**

**ASSOCIATE IN ARTS**

**A 10 10 0**

For electives, see your advisor.

Course Title	Hours Per Week		
	CI	Lb	Cr
<b>FALL - 1st Year</b>			
ENG 111	Expository Writing	3	0 3
HIS 121	Western Civilization I	3	0 3
MAT 140	Survey of Mathematics	3	0 3
	<b>OR</b>		
MAT 161	College Algebra	3	0 3
PED 110	Fit and Well for Life	1	2 2
-----	----- Humanities/Fine Arts		
	Core Course	3	0 3
-----	----- Social/Behavioral		
	Sciences Core Course	<u>3</u>	<u>0</u> <u>3</u>
		<b>16</b>	<b>2 17</b>

**SPRING - 1st Year**

ENG 112	Argument-Based Research	3	0 3
	<b>OR</b>		
ENG 113	Literature-Based Research	3	0 3
HIS 122	Western Civilization II	3	0 3
MAT 162	College Trigonometry	3	0 3
-----	----- Humanities /Fine Arts		
	Core Course	3	0 3
-----	----- PED Elective	0	2 1
-----	----- Social/Behavioral		
	Sciences Core Course	<u>3</u>	<u>0</u> <u>3</u>
		<b>15</b>	<b>2 16</b>

**FALL - 2nd Year**

CIS 110	Intro to Computers	2	2 3
COM110	Intro to Communications	3	0 3
	<b>OR</b>		
COM120	Interpersonal Comm	3	0 3
	<b>OR</b>		
COM231	Public Speaking	3	0 3
-----	----- College Transfer Elective	3	0 3
-----	----- Literature Core Course	3	0 3
-----	----- Science Core Course	3	3 4
	<b>OR</b>		
-----	----- Science Core Course	<u>(3)</u>	<u>(2)</u> <u>(4)</u>
		<b>14</b>	<b>5 16</b>
			<b>(14) (4)(16)</b>

Continued on next page.

**SPRING - 2nd Year**

-----	-----	College Transfer Elective	3	0	3
-----	-----	College Transfer Elective	3	0	3
-----	-----	College Transfer Elective	3	0	3
-----	-----	Humanities/Fine Arts			
		Core Course	3	0	3
-----	-----	Science Core Course	3	3	4
		<b>OR</b>			
-----	-----	Science Core Course	(3)	(2)	(4)
			<b>15</b>	<b>3</b>	<b>16</b>
			<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

**TOTAL CREDIT HOURS: 65**

## COLLEGE TRANSFER - ASSOCIATE IN ARTS

### Pre-Major Business Administration

#### A 10 10 B

#### A.A.

#### Day and Evening

This program of study is designed for students intending to pursue a Bachelor of Arts degree in business administration. Students should consult with the four-year college they plan to attend for further information on admission requirements in business administration. For electives, see your advisor.

#### FALL - 1st Year

ENG 111	Expository Writing	3	0	3
HIS 111	World Civilizations I	3	0	3
	<b>OR</b>			
HIS 121	Western Civilization I	3	0	3
MAT 161	College Algebra	3	0	3
SOC 210	Sociology	3	0	3
-----	----- Humanities/Fine Arts			
	Core Course	3	0	3
		<b>15</b>	<b>0</b>	<b>15</b>

#### SPRING - 1st Year

CIS 110	Introduction to Computers	3	0	3
ENG 112	Argument-Based Research	3	0	3
	<b>OR</b>			
ENG 113	Literature-Based Research	3	0	3
MAT 263	Brief Calculus	3	0	3
POL 120	American Government	3	0	3
-----	----- Humanities/Fine Arts			
	Core Course	3	0	3
		<b>15</b>	<b>0</b>	<b>15</b>

#### FALL - 2nd Year

ACC 120	Principles of Accounting I	3	2	4
ECO 251	Principles of Microeconomics	3	0	3
PSY 150	General Psychology	3	0	3
-----	----- Literature Core Course	3	0	3
-----	----- Science Core Course	3	3	4
	<b>OR</b>			
-----	----- Science Core Course	(3)	(2)	(4)
		<b>15</b>	<b>3</b>	<b>17</b>
		<b>(15)</b>	<b>(2)</b>	<b>(17)</b>

#### SPRING - 2nd Year

ACC 121	Principles of Accounting II	3	2	4
MAT 151	Statistics I	3	0	3
	<b>OR</b>			
MAT 155	Statistical Analysis	(3)	(0)	(3)
	<b>AND</b>			
MAT 155A	Statistics Analysis Lab	(0)	(2)	(1)
ECO 252	Principles of Macroeconomics	3	0	3
-----	----- Humanities/Fine Arts			
	Core Course	3	0	3
-----	----- Science Core Course	3	3	4
	<b>OR</b>			
-----	----- Science Core Course	(3)	(2)	(4)
		<b>15</b>	<b>5</b>	<b>17</b>
		<b>(15)</b>	<b>(6-7)</b>	<b>(18)</b>

**TOTAL CREDIT HOURS: 64-65**



# COLLEGE TRANSFER - ASSOCIATE IN ARTS

## Pre-Major Criminal Justice

### A 10 10 D

This program of study is designed for students intending to pursue a Bachelor of Arts degree in criminal justice. Students should consult with the four-year college they plan to attend for further information on admission requirements in criminal justice. For electives, see your advisor.

#### FALL - 1st Year

ENG 111	Expository Writing	3	0	3
HIS 111	World Civilizations I	3	0	3
<b>OR</b>				
HIS 121	Western Civilization I	3	0	3
MAT 161	College Algebra	3	0	3
PED 110	Fit and Well for Life	1	2	2
SOC 210	Introduction to Sociology	3	0	3
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>16</b>	<b>2</b>	<b>17</b>

#### SPRING - 1st Year

ENG 112	Argument-Based Research	3	0	3
<b>OR</b>				
ENG 113	Literature-Based Research	3	0	3
MAT 151	Statistics I	3	0	3
<b>OR</b>				
MAT 155	Statistical Analysis	(3)	(0)	(3)
<b>AND</b>				
MAT 155A	Statistics Analysis Lab	(0)	(2)	(1)
PSY 150	General Psychology	3	0	3
-----	College Transfer Elective	3	0	3
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>0</b>	<b>15</b>
		<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

#### FALL - 2nd Year

CJC 111	Introduction to Criminal Justice	3	0	3
POL 120	American Government	3	0	3
SPA 111	Elementary Spanish I	3	0	3
<b>OR</b>				
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	Literature Core Course	3	0	3
-----	Science Core Course	3	3	4
<b>OR</b>				
-----	Science Core Course	(3)	(2)	(4)
		<b>15</b>	<b>3</b>	<b>16</b>
		<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

### A.A.

### Day and Evening

#### SPRING - 2nd Year

CJC 121	Law Enforcement			
	Operations	3	0	3
CJC 141	Corrections	3	0	3
SPA 112	Elementary Spanish II	3	0	3
<b>OR</b>				
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	College Transfer Elective	3	0	3
-----	Science Core Course	3	3	4
<b>OR</b>				
-----	Science Core Course	(3)	(2)	(4)
		<b>15</b>	<b>3</b>	<b>16</b>
		<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

**TOTAL CREDIT HOURS: 64-65**

# COLLEGE TRANSFER - ASSOCIATE IN ARTS

## Pre-Major Elementary Education

A 10 10 P

A.A.

Day and Evening

This program of study is designed for students intending to pursue a Bachelor of Arts degree in elementary education. Students should consult with the four-year college they plan to attend for further information on admission requirements in elementary education. For electives, see your advisor.

### FALL - 1st Year

ART 111	Art Appreciation	3	0	3
	<i>OR</i>			
MUS 110	Music Appreciation	3	0	3
ENG 111	Expository Writing	3	0	3
HIS 111	World Civilizations I	3	0	3
	<i>OR</i>			
HIS 121	Western Civilization I	3	0	3
MAT 140	Survey of Mathematics	3	0	3
PED 110	Fit and Well for Life	1	2	2
PSY 150	General Psychology	<u>3</u>	<u>0</u>	<u>3</u>
		<b>16</b>	<b>2</b>	<b>17</b>

### SPRING - 1st Year

COM 231	Public Speaking	3	0	3
ENG 112	Argument-Based Research	3	0	3
	<i>OR</i>			
ENG 113	Literature-Based Research	3	0	3
HIS 112	World Civilizations II	3	0	3
	<i>OR</i>			
HIS 122	Western Civilization II	3	0	3
MAT 161	College Algebra	3	0	3
	<i>OR</i>			
CIS 110	Introduction to Computers	(2)	(2)	(3)
SOC 210	Introduction to Sociology	3	0	3
-----	PED Elective	<u>2</u>	<u>0</u>	<u>1</u>
		<b>17</b>	<b>0</b>	<b>16</b>
		<b>(16)</b>	<b>(2)</b>	<b>(16)</b>

### FALL - 2nd Year

BIO 111	General Biology	3	3	4
ENG 131	Introduction to Literature	3	0	3
	<i>OR</i>			
ENG 231	American Literature I	3	0	3
	<i>OR</i>			
ENG 232	American Literature II	3	0	3
HIS 131	American History I	3	0	3
PSY 241	Developmental Psychology	3	0	3
-----	College Transfer Elective	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>3</b>	<b>16</b>

### SPRING - 2nd Year

CHM 151	General Chemistry	3	3	4
	<i>OR</i>			
PHY 151	College Physics	3	2	4
	<i>OR</i>			
PHY 110	Conceptual Physics	3	0	3
	<i>AND</i>			
PHY 110A	Conceptual Physics Lab	0	2	1
PSY 281	Abnormal Psychology	3	0	3
-----	College Transfer Elective	3	0	3
-----	College Transfer Elective	3	0	3
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>3</b>	<b>16</b>
		<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

**TOTAL CREDIT HOURS: 65**

# COLLEGE TRANSFER - ASSOCIATE IN ARTS

## Pre-Major English

### A 10 10 E

### A.A.

### Day and Evening

This program of study is designed for students intending to pursue a Bachelor of Arts degree in English. Students should consult with the four-year college they plan to attend for further information on admission requirements in English. For electives, see your advisor.

#### FALL - 1st Year

ENG 111	Expository Writing	3	0	3
HIS 111	World Civilizations I	3	0	3
MAT 161	College Algebra	3	0	3
	<b>OR</b>			
MAT 140	Survey of Mathematics	3	0	3
PED 110	Fit and Well for Life	1	2	2
PSY 150	General Psychology	3	0	3
SPA 111	Elementary Spanish I	3	0	3
		<b>16</b>	<b>2</b>	<b>17</b>

#### SPRING - 1st Year

ENG 112	Argument-Based Research	3	0	3
	<b>OR</b>			
ENG 113	Literature-Based Research	3	0	3
HIS 112	World Civilizations II	3	0	3
MAT 162	College Trigonometry	3	0	3
	<b>OR</b>			
MAT 151	Statistics I	3	0	3
SOC 210	Introduction to Sociology	3	0	3
SPA 112	Elementary Spanish II	3	0	3
-----	PED Elective	2	0	1
		<b>17</b>	<b>0</b>	<b>16</b>

#### FALL - 2nd Year

ENG 131	Introduction to Literature	3	0	3
	<b>OR</b>			
ENG 231	American Literature I	3	0	3
	<b>OR</b>			
ENG 241	British Literature I	3	0	3
HUM 160	Introduction to Film	3	0	3
	<b>OR</b>			
HUM 121	The Nature of America	3	0	3
	<b>OR</b>			
PHI 215	Philosophical Issues	3	0	3
	<b>OR</b>			
PHI 240	Introduction to Ethics	3	0	3
SPA 211	Intermediate Spanish I	3	0	3
-----	Science Core Course	3	3	4
	<b>OR</b>			
-----	Science Core Course	(3)	(2)	(4)
-----	Social/Behavioral			
	Sciences Core Course	3	0	3
		<b>15</b>	<b>3</b>	<b>16</b>
		<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

#### SPRING - 2nd Year

ENG 232	American Literature II	3	0	3
	<b>OR</b>			
ENG 242	British Literature II	3	0	3
	<b>OR</b>			
ENG 262	World Literature II	3	0	3
-----	Humanities/Fine Arts			
	Core Course	3	0	3
	<b>OR</b>			
ENG 273	African -American Literature	3	0	3
SPA 212	Intermediate Spanish II	3	0	3
-----	Science Core Course	3	3	4
	<b>OR</b>			
-----	Science Core Course	(3)	(2)	(4)
-----	Social/Behavioral			
	Science Core Course	3	0	3
		<b>15</b>	<b>3</b>	<b>16</b>
		<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

**TOTAL CREDIT HOURS: 65**



## COLLEGE TRANSFER - ASSOCIATE IN ARTS

### Pre-Major History

#### A 10 10 H

This program of study is designed for students intending to pursue a Bachelor of Arts degree in history. Students should consult with the four-year college they plan to attend for further information on admission requirements in history. For electives, see your advisor.

#### FALL - 1st Year

ENG 111	Expository Writing	3	0	3
HIS 111	World Civilizations I	3	0	3

#### OR

HIS 121	Western Civilization I	3	0	3
MAT 161	College Algebra	3	0	3
PED 110	Fit and Well for Life	1	2	2
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	Social/Behavioral			
	Sciences Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>16</b>	<b>2</b>	<b>17</b>

#### SPRING - 1st Year

ENG 112	Argument-Based Research	3	0	3
---------	-------------------------	---	---	---

#### OR

ENG 113	Literature-Based Research	3	0	3
HIS 112	World Civilizations II	3	0	3

#### OR

HIS 122	Western Civilization II	3	0	3
MAT 162	College Trigonometry	3	0	3

#### OR

MAT 151	Statistics I	3	0	3
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	PED Elective	2	0	1
-----	Social/Behavioral			
	Sciences Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>17</b>	<b>0</b>	<b>16</b>

#### FALL - 2nd Year

HIS 131	American History I	3	0	3
-----	College Transfer Elective	3	0	3
-----	Literature Core Course	3	0	3
-----	Science Core Course	3	3	4

#### OR

-----	Science Core Course	(3)	(2)	(4)
-----	Social/Behavioral Science			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>3</b>	<b>16</b>
		<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

#### A.A.

#### Day and Evening

#### SPRING - 2nd Year

HIS 132	American History II	3	0	3
-----	College Transfer Elective	3	0	3
-----	College Transfer Elective	3	0	3
-----	Humanities/Fine Arts			
	Core Course	3	0	3
----	Science Core Course	3	3	4

#### OR

-----	Science Core Course	(3)	(2)	(4)
		<b>15</b>	<b>3</b>	<b>16</b>
		<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

**TOTAL CREDIT HOURS: 65**

# COLLEGE TRANSFER - ASSOCIATE IN ARTS

## Pre-Major Nursing

### A 10 10 I

### A.A.

### Day and Evening

This program of study is designed for students intending to pursue a Bachelor of Arts degree in nursing. Students should consult with the four-year college they plan to attend for further information on admission requirements in nursing. For electives, see your advisor.

### FALL - 1st Year

CHM151	General Chemistry I	3	3	4
ENG 111	Expository Writing	3	0	3
MAT 161	College Algebra	3	0	3
-----	History Core Course	3	0	3
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>3</b>	<b>16</b>

### SPRING - 1st Year

CHM152	General Chemistry II	3	3	4
ENG 112	Argument-Based Research	3	0	3
	<b>OR</b>			
ENG 113	Literature-Based Research	3	0	3
MAT 151	Statistics I	3	0	3
	<b>OR</b>			
MAT 155	Statistical Analysis	(3)	(0)	(3)
	<b>AND</b>			
MAT 155A	Statistics Analysis Lab	(0)	(2)	(1)
PSY 150	General Psychology	3	0	3
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>3</b>	<b>16</b>
		<b>(15)</b>	<b>(5)</b>	<b>(17)</b>

### FALL - 2nd Year

BIO 168	Anatomy and			
	Physiology I	3	3	4
PSY 281	Abnormal Psychology	3	0	3
SOC 210	Introduction to Sociology	3	0	3
-----	College Transfer Elective	3	0	3
-----	Literature Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>0</b>	<b>16</b>

### SPRING - 2nd Year

BIO 169	Anatomy and			
	Physiology II	3	3	4
BIO 175	General Microbiology	2	2	3
SOC 213	Sociology of the Family	3	0	3
-----	College Transfer Elective	3	0	3
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>14</b>	<b>2</b>	<b>16</b>

**TOTAL CREDIT HOURS: 64-65**

## COLLEGE TRANSFER - ASSOCIATE IN ARTS

### Pre-Major Physical Education

#### A 10 10 J

This program of study is designed for students intending to pursue a Bachelor of Arts degree in physical education. Students should consult with the four-year college they plan to attend for further information on admission requirements in physical education. For electives, see your advisor.

#### FALL - 1st Year

ENG 111	Expository Writing	3	0	3
HIS 111	World Civilizations I	3	0	3
<b>OR</b>				
HIS 121	Western Civilization I	3	0	3
MAT 161	College Algebra	3	0	3
PED 110	Fit and Well for Life	1	2	2
-----	College Transfer Elective	3	0	3
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>16</b>	<b>2</b>	<b>17</b>

#### SPRING - 1st Year

ENG 112	Argument-Based Research	3	0	3
MAT 151	Statistics I	3	0	3
<b>OR</b>				
MAT 155	Statistical Analysis	(3)	(0)	(3)
<b>AND</b>				
MAT 155A	Statistics Analysis Lab	(0)	(2)	(1)
PSY 150	General Psychology	3	0	3
-----	College Transfer Elective	3	0	3
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	PED Elective	2	0	1
		<b>17</b>	<b>0</b>	<b>16</b>
		<b>(17)</b>	<b>(2)</b>	<b>(17)</b>

#### FALL - 2nd Year

BIO 111	General Biology I	3	3	4
COM231	Public Speaking	3	0	3
-----	College Transfer Elective	3	0	3
-----	Literature Core Course	3	0	3
-----	PED Elective	2	0	1
-----	Social/Behavioral Sciences			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>17</b>	<b>3</b>	<b>17</b>

#### A.A.

#### Day and Evening

#### SPRING - 2nd Year

BIO 112	General Biology II	3	3	4
-----	College Transfer Elective	3	0	3
-----	College Transfer Elective	3	0	3
-----	PED Elective	2	0	1
-----	Social/Behavioral Sciences			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>14</b>	<b>3</b>	<b>14</b>

**TOTAL CREDIT HOURS: 64-65**



## COLLEGE TRANSFER - ASSOCIATE IN ARTS

### Pre-Major Psychology

#### A 10 10 L

#### A.A.

#### Day and Evening

This program of study is designed for students intending to pursue a Bachelor of Arts degree in psychology. Students should consult with the four-year college they plan to attend for further information on admission requirements in psychology. For electives, see your advisor.

#### FALL - 1st Year

ENG 111	Expository Writing	3	0	3
HIS 111	World Civilizations I	3	0	3
<i>OR</i>				
HIS 121	Western Civilization I	3	0	3
MAT 161	College Algebra	3	0	3
<i>OR</i>				
-----	Mathematics Core Course	3	0	3
PED 110	Fit and Well for Life	1	2	2
PSY 150	General Psychology	3	0	3
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>16</b>	<b>2</b>	<b>17</b>

#### SPRING - 1st Year

ENG 112	Argument-Based Research	3	0	3
<i>OR</i>				
ENG 113	Literature-Based Research	3	0	3
HIS 112	World Civilizations II	3	0	3
<i>OR</i>				
HIS 122	Western Civilization II	3	0	3
MAT 151	Statistics I	3	0	3
SOC 210	Introduction to Sociology	3	0	3
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	PED Elective	<u>2</u>	<u>0</u>	<u>1</u>
		<b>17</b>	<b>0</b>	<b>16</b>

#### FALL - 2nd Year

BIO 111	General Biology I	3	3	4
PSY 241	Developmental Psychology	3	0	3
-----	College Transfer Elective	3	0	3
-----	College Transfer Elective	3	0	3
-----	Literature Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>3</b>	<b>16</b>

#### SPRING - 2nd Year

BIO 112	General Biology II	3	3	4
PSY 281	Abnormal Psychology	3	0	3
-----	College Transfer Elective	3	0	3
-----	College Transfer Elective	3	0	3
-----	Humanities /Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>3</b>	<b>16</b>

**TOTAL CREDIT HOURS: 64-65**

## COLLEGE TRANSFER - ASSOCIATE IN ARTS

### Pre-Major Social Work

#### A 10 10 Q

#### A.A.

#### Day and Evening

This program of study is designed for students intending to pursue a Bachelor of Arts degree in social work. Students should consult with the four-year college they plan to attend for further information on admission requirements in social work. For electives, see your advisor.

#### FALL - 1st Year

ENG 111	Expository Writing	3	0	3
HIS 111	World Civilizations I	3	0	3
MAT 161	College Algebra	3	0	3
PED 110	Fit and Well for Life	1	2	2
SOC 210	Introduction to Sociology	3	0	3
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>16</b>	<b>2</b>	<b>17</b>

#### SPRING - 1st Year

ENG 112	Argument-Based Research	3	0	3
	<i>OR</i>			
ENG 113	Literature-Based Research	3	0	3
HIS 112	World Civilizations II	3	0	3
	<i>OR</i>			
HIS 122	Western Civilization II	3	0	3
MAT 151	Statistics I	3	0	3
	<i>OR</i>			
CIS 110	Introduction to Computers	3	0	3
PSY 150	General Psychology	3	0	3
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	PED Elective	<u>2</u>	<u>0</u>	<u>1</u>
		<b>17</b>	<b>0</b>	<b>16</b>

#### FALL - 2nd Year

BIO 111	General Biology I	3	3	4
POL 120	American Government	3	0	3
-----	College Transfer Elective	3	0	3
-----	Literature Core Course	3	0	3
	<i>Select one of the following:</i>			
ANT 210	General Anthropology	3	0	3
ECO 151	Survey of Economics	3	0	3
HIS 132	American History II	3	0	3
SPA 111	Elementary Spanish I	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>0</b>	<b>16</b>

#### SPRING - 2nd Year

BIO 112	General Biology II	3	3	4
PSY 241	Developmental Psychology	3	0	3
	<i>OR</i>			
PSY 281	Abnormal Psychology	3	0	3
-----	College Transfer Elective	3	0	3
-----	Humanities/Fine Arts			
	Core Course	3	0	3
	<i>Select one of the following:</i>			
ANT 220	Cultural Anthropology	3	0	3
ECO 251	Principles of Microeconomics	3	0	3
ECO 252	Principles of Macroeconomics	3	0	3
SPA 112	Elementary Spanish II	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>0</b>	<b>16</b>

**TOTAL CREDIT HOURS: 65**

# COLLEGE TRANSFER - ASSOCIATE IN ARTS

## Pre-Major Sociology

### A 10 10 N

### A.A.

### Day and Evening

This program of study is designed for students intending to pursue a Bachelor of Arts degree in sociology. Students should consult with the four-year college they plan to attend for further information on admission requirements in sociology. For electives, see your advisor.

#### FALL - 1st Year

ENG 111	Expository Writing	3	0	3
HIS 111	World Civilizations I	3	0	3

**OR**

HIS 121	Western Civilization I	3	0	3
MAT 161	College Algebra	3	0	3
PED 110	Fit and Well for Life	1	2	2
SOC 210	Introduction to Sociology	3	0	3

----- Humanities/Fine Arts

Core Course	3	0	3
	<b>16</b>	<b>2</b>	<b>17</b>

#### SPRING - 1st Year

ENG 112	Argument-Based Research	3	0	3
MAT 151	Statistics I	3	0	3

**OR**

MAT 155	Statistical Analysis	(3)	(0)	(3)
---------	----------------------	-----	-----	-----

**AND**

MAT 155A	Statistics Analysis Lab	(0)	(2)	(1)
----------	-------------------------	-----	-----	-----

SOC 213	Sociology of the Family	3	0	3
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----- College Transfer Elective 3 0 3

----- Humanities/Fine Arts

Core Course	3	0	3
	<b>15</b>	<b>0</b>	<b>15</b>
	<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

#### FALL - 2nd Year

----- College Transfer Elective 3 0 3

----- College Transfer Elective 3 0 3

----- Literature Core Course 3 0 3

----- Science Core Course 3 3 4

**OR**

----- Science Core Course (3) (2) (4)

*Select one of the following:*

ANT 210	General Anthropology	3	0	3
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ECO 251	Principles of Microeconomics	3	0	3
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ECO 252	Principles of Macroeconomics	3	0	3
---------	------------------------------	---	---	---

POL 120	American Government	3	0	3
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PSY 150	General Psychology	3	0	3
		<b>15</b>	<b>3</b>	<b>16</b>
		<b>(15)</b>	<b>(2)</b>	<b>(16)</b>

#### SPRING - 2nd Year

----- College Transfer Elective	3	0	3
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----- College Transfer Elective	3	0	3
---------------------------------	---	---	---

----- College Transfer Elective	3	0	3
---------------------------------	---	---	---

----- Humanities/Fine Arts

Core Course	3	0	3
-------------	---	---	---

----- Science Core Course	3	3	4
---------------------------	---	---	---

**OR**

----- Science Core Course	(3)	(2)	(4)
---------------------------	-----	-----	-----

**15 3 16**

**(15) (2)(16)**

**TOTAL CREDIT HOURS: 64-65**



# COLLEGE TRANSFER - ASSOCIATE IN SCIENCE

A 10 40 0

A.S.

Day and Evening

## CURRICULUM DESCRIPTION

The College Transfer curriculum is designed to offer students an opportunity to take the first two years of a liberal arts college curriculum. The course work includes composition and literature, humanities, mathematics, natural and social sciences, and physical education. Students who maintain a grade average of C or better should be able to transfer these credits to a senior college or university and complete a bachelor's degree. The Associate in Science curriculum concentrates on mathematics and the physical and life sciences and is recommended for those students who plan to continue with a bachelor's degree in one of these areas.

## CURRICULUM COURSES

Course Title	Hours Per Week	CI	Lb	Cr
--------------	----------------	----	----	----

### GENERAL EDUCATION CORE .....44 (See 1 through 5 below)

#### 1. English .....6

ENG 111	Expository Writing (required)	3	0	3
ENG 112	Argument-Based Research	3	0	3
<b>OR</b>				
ENG 113	Lit.-Based Research	3	0	3

#### 2. Humanities/Fine Arts .....12

Select 4 courses from at least 3 disciplines.  
At least 1 literature course required.

ART 111	Art Appreciation	3	0	3
ENG 231	American Literature I	3	0	3
ENG 232	American Literature II	3	0	3
ENG 241	British Literature I	3	0	3
ENG 242	British Literature II	3	0	3
FRE 111	Elementary French I	3	0	3
FRE 112	Elementary French II	3	0	3
MUS 110	Music Appreciation	3	0	3
PHI 215	Philosophical Issues	3	0	3
PHI 240	Introduction to Ethics	3	0	3
REL 110	World Religions	3	0	3
SPA 111	Elementary Spanish I	3	0	3
SPA 112	Elementary Spanish II	3	0	3

#### 3. Social/Behavioral Sciences .....12

Select 4 courses from at least 3 disciplines.  
At least 1 history course required.

ANT 210	General Anthropology	3	0	3
ANT 220	Cultural Anthropology	3	0	3
ECO 151	Survey of Economics	3	0	3
ECO 251	Prin. of Microeconomics	3	0	3
ECO 252	Prin. of Macroeconomics	3	0	3

HIS 121	Western Civilization I	3	0	3
HIS 122	Western Civilization II	3	0	3
HIS 131	American History I	3	0	3
HIS 132	American History II	3	0	3
POL 120	American Government	3	0	3
PSY 150	General Psychology	3	0	3
PSY 241	Developmental Psychology	3	0	3
SOC 210	Intro. to Sociology	3	0	3
SOC 213	Sociology of the Family	3	0	3

#### 4. Natural Sciences .....8

Select a two-course sequence in general biology, general chemistry, or general physics.

BIO 111	General Biology I	3	3	4
BIO 112	General Biology II	3	3	4
CHM 151	General Chemistry I	3	3	4
CHM 152	General Chemistry II	3	3	4
PHY 151	College Physics I	3	2	4
PHY 152	College Physics II	3	2	4
PHY 251	General Physics I	4	3	5
PHY 252	General Physics II	3	3	4

#### 5. Mathematics .....6

Select from list A, at least one course in mathematics at the precalculus algebra level or above. The other course may be selected from list B.

##### Mathematics (A)

MAT 175	Precalculus	4	0	4
MAT 263	Brief Calculus	3	0	3

##### Mathematics (B)

MAT 151	Statistics I	3	0	3
MAT 271	Calculus I	3	2	4

### OTHER REQUIRED HOURS .....20-21

Other required courses are the following for a total of 6 hours:

COM 110	Intro to Communications	3	0	3
<b>OR</b>				
COM 120	Interpersonal Comm	3	0	3
<b>OR</b>				
COM 231	Public Speaking	3	0	3
PED 110	Fit and Well for Life	1	2	2
---	PED Elective	0	2	1

At least 14 hours must be taken from the list below. Any course not used to satisfy the general education core in mathematics and natural sciences may be used here.

BIO 120, 130, 163, 168, 169, and 175  
CHM 251 and 252  
MAT 151A, 161, 162, 175A, 272, 273, and 285

### TOTAL CREDIT HOURS: 64 Minimum

Continued on next page.

## ASSOCIATE IN SCIENCE

**A 10 40 0**

For electives, see your advisor.

### FALL - 1st Year

CHM 151	General Chemistry I	3	3	4
ENG 111	Expository Writing	3	0	3
HIS 121	Western Civilization I	3	0	3
MAT 175	Precalculus	4	0	4
MAT 175A	Precalculus Lab	0	2	1
-----	----- Communications Core			
	Elective	<u>3</u>	<u>0</u>	<u>3</u>
		<b>16</b>	<b>5</b>	<b>18</b>

### SPRING - 1st Year

CHM 152	General Chemistry II	3	3	4
ENG 112	Argument-based Research	3	0	3
	<b>OR</b>			
ENG 113	Literature-based Research	3	0	3
HIS 122	Western Civilization II	3	0	3
MAT 271	Calculus	3	2	4
-----	----- Humanities/Fine Arts Core			
	Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>5</b>	<b>17</b>

### FALL - 2nd Year

PED 110	Fit and Well for Life	1	2	2
-----	----- Humanities/Fine Arts			
	Elective	3	0	3
-----	----- Literature Core Course	3	0	3
-----	----- Science Core Course/			
	Elective	3	3	4
	<b>OR</b>			
-----	----- Science Core Course/			
	Elective	(3)	(2)	(4)
-----	----- Social/Behavioral			
	Sciences Core			
	Course (Not History)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>13</b>	<b>5</b>	<b>15</b>
		<b>(13)</b>	<b>(4)</b>	<b>(15)</b>

### SPRING - 2nd Year

PED -----	Physical Education			
	Elective	0	2	1
-----	----- Humanities/Fine Arts			
	Core Course	3	0	3
-----	----- Math/Science Elective	3	2	4
-----	----- Math/Science Elective	3	2	4
-----	----- Social/Behavioral			
	Sciences Core	<u>3</u>	<u>0</u>	<u>3</u>
		<b>12</b>	<b>6</b>	<b>15</b>

**TOTAL CREDIT HOURS: 65**

## COLLEGE TRANSFER - ASSOCIATE IN SCIENCE

### Pre-Major Biology and Biology Education

#### A 10 40 A

#### A.S.

#### Day and Evening

This program of study is designed for students intending to pursue a Bachelor of Science degree in biology. Students should consult with the four-year college they plan to attend for further information on admission requirements in biology. For electives, see your advisor.

#### FALL - 1st Year

BIO 111	General Biology I	3	3	4
CHM 151	General Chemistry I	3	3	4
ENG 111	Expository Writing	3	0	3
MAT 175	Precalculus	4	0	4
MAT 175A	Precalculus Lab	0	2	1
-----	Soc./Behavioral Sci.			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>16</b>	<b>8</b>	<b>19</b>

#### SPRING - 1st Year

BIO 112	General Biology II	3	3	4
CHM 152	General Chemistry II	3	3	4
ENG 112	Argument-based Research	3	0	3
	<b>OR</b>			
ENG 113	Literature-based Research	3	0	3
MAT 271	Calculus I	3	2	4
-----	Soc./Behavioral Sci.			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>8</b>	<b>18</b>

#### FALL - 2nd Year

PED 110	Fit and Well for Life	1	2	2
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	Literature Core Course	3	0	3
-----	Math/Science Elective*	3	2	4
	<b>OR</b>			
-----	Math/Science Elective*	(3)	(3)	(4)
-----	Social/Behavioral Science			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>13</b>	<b>4</b>	<b>15</b>
		<b>(13)</b>	<b>(5)</b>	<b>(15)</b>

#### SPRING - 2nd Year

BIO 130	Zoology	3	3	4
PED -----	Physical Education			
	Elective	0	2	1
	<b>OR</b>			
PED -----	Physical Education			
	Elective	(0)	(3)	(1)
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	Social/Behavioral Sciences			
	Core	<u>3</u>	<u>0</u>	<u>3</u>
		<b>2</b>	<b>5</b>	<b>14</b>
		<b>(2)</b>	<b>(6)</b>	<b>(14)</b>

\* Select from the following courses:

AST 111/111A, MAT 271, 272, CHM 251, 252  
PHY 110/110A, 151, 152, 251, 252

**TOTAL CREDIT HOURS: 66**



## COLLEGE TRANSFER - ASSOCIATE IN SCIENCE

### Pre-Major Chemistry and Chemistry Education

#### A 10 40 B

#### A.S.

#### Day and Evening

This program of study is designed for students intending to pursue a Bachelor of Science degree in chemistry. Students should consult with the four-year college they plan to attend for further information on admission requirements in chemistry. For electives, see your advisor.

#### FALL - 1st Year

CHM 151	General Chemistry I	3	3	4
ENG 111	Expository Writing	3	0	3
MAT 271	Calculus I	3	2	4
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	Soc./Behavioral Sci.			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>5</b>	<b>17</b>

#### SPRING - 1st Year

CHM 152	General Chemistry II	3	3	4
ENG 112	Argument-based Research	3	0	3
	<b>OR</b>			
ENG 113	Literature-based Research	3	0	3
MAT 272	Calculus II	3	2	4
PSY 150	General Psychology	3	0	3
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>5</b>	<b>17</b>

#### FALL - 2nd Year

CHM 251	Organic Chemistry I	3	3	4
PHY 251	General Physics I	3	3	4
PED 110	Fit and Well for Life	1	2	2
-----	Literature Core Course	3	0	3
-----	Soc./Behavioral Science			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>13</b>	<b>8</b>	<b>16</b>

#### SPRING - 2nd Year

CHM 252	Organic Chemistry II	3	3	4
PED -----	Physical Education			
	Elective	0	2	1
	<b>OR</b>			
PED -----	Physical Education			
	Elective	(0)	(3)	(1)
PHY 252	General Physics II	3	3	4
-----	Humanities/Fine Arts			
	Core Course	3	0	3
-----	Social/Behavioral			
	Sciences Core	<u>3</u>	<u>0</u>	<u>3</u>
		<b>12</b>	<b>8</b>	<b>15</b>
		<b>(12)</b>	<b>(9)</b>	<b>(15)</b>

**TOTAL CREDIT HOURS: 65**

# COLLEGE TRANSFER - ASSOCIATE IN SCIENCE

## Pre-Major Engineering

### A 10 40 D

### A.S.

### Day and Evening

This program of study is designed for students intending to pursue an engineering degree. Students should consult with the four-year college they plan to attend for further information on admission requirements in engineering. For electives, see your advisor.

\* Elementary foreign language I recommended  
\*\*Elementary foreign language II recommended.

**TOTAL CREDIT HOURS: 64**

### FALL - 1st Year

CHM151	General Chemistry I	3	3	4
ENG 111	Expository Writing	3	0	3
MAT271	Calculus I	3	2	4
HIS 121	Western Civilization I	3	0	3
	<b>OR</b>			
HIS 111	World Civilizations I	3	0	3
-----	Humanities/Fine Arts			
	Core Course*	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>5</b>	<b>17</b>

### SPRING - 1st Year

CHM152	Gen. Chemistry II	3	3	4
ENG 112	Argument-based Research	3	0	3
	<b>OR</b>			
ENG 113	Literature-based Research	3	0	3
MAT 272	Calculus II	3	2	4
HIS 122	Western Civilization II	3	0	3
	<b>OR</b>			
HIS 112	World Civilizations II	3	0	3
-----	Humanities/Fine Arts			
	Core Course**	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>5</b>	<b>17</b>

### FALL - 2nd Year

CSC 134	C++ Programming	2	3	3
MAT273	Calculus III	3	2	4
PHY 251	Gen. Physics I	3	3	4
-----	Literature Core Course	3	0	3
-----	Social/Behavioral Sciences			
	Core Course (Not History)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>14</b>	<b>8</b>	<b>17</b>

### SPRING - 2nd Year

ECO 251	Principles of Microeconomics	3	0	3
	<b>OR</b>			
ECO 252	Principles of Macroeconomics	3	0	3
MAT285	Differential Equations	3	0	3
PHY 252	Gen. Physics II	3	3	4
-----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>12</b>	<b>3</b>	<b>13</b>

## COLLEGE TRANSFER - ASSOCIATE IN SCIENCE

### Pre-Major Mathematics

#### A 10 40 E

#### A.S.

#### Day and Evening

This program of study is designed for students intending to pursue a Bachelor of Science degree in mathematics. Students should consult with the four-year college they plan to attend for further information on admission requirements in mathematics. For electives, see your advisor.

#### FALL - 1st Year

ENG 111	Expository Writing	3	0	3
HIS 121	Western Civilization I	3	0	3
<b>OR</b>				
HIS 111	World Civilizations I	3	0	3
MAT 175	Precalculus	4	0	4
MAT 175A	Precalculus Lab	0	2	1
----	Humanities/Fine Arts			
	Core Course	3	0	3
----	Science Core Elective	<u>3</u>	<u>3</u>	<u>4</u>
		<b>16</b>	<b>5</b>	<b>18</b>

#### SPRING - 1st Year

ENG 112	Argument-based Research	3	0	3
<b>OR</b>				
ENG 113	Literature-based Research	3	0	3
HIS 122	Western Civilization II	3	0	3
<b>OR</b>				
HIS 112	World Civilizations II	3	0	3
MAT 271	Calculus I	3	2	4
----	Humanities/Fine Arts			
	Arts Core	3	0	3
----	Humanities/Fine Arts			
	Core Course	<u>3</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>2</b>	<b>16</b>

#### FALL - 2nd Year

PHY 251	Gen. Physics I	3	3	4
PED 110	Fit and Well for Life	1	2	2
MAT 272	Calculus II	3	2	4
----	Literature Core Course	3	0	3
----	Social/Behavioral Sciences			
	Core Course (Not History)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>13</b>	<b>7</b>	<b>16</b>

#### SPRING - 2nd Year

PED -----	Physical Education			
	Elective	0	2	1
<b>OR</b>				
PED -----	Physical Education			
	Elective	(0)	(3)	(1)
PHY 252	Gen. Physics II	3	3	4
MAT 285	Differential Equations	3	0	3
MAT 273	Calculus III	3	2	4
-----	Social/Behavioral Sciences			
	Core Course (Not History)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>12</b>	<b>7</b>	<b>15</b>
		<b>(12) (8) (15)</b>		

**TOTAL CREDIT HOURS: 65**



# COMPUTED TOMOGRAPHY

C 45 20 0

Certificate

Day

## CURRICULUM DESCRIPTION

The Computed Tomography certificate, a specialty for radiographers, prepares the individual to use specialized equipment to visualize cross-sectional anatomical structures and aid physicians in the demonstration of pathologies and disease processes. *Individuals entering this curriculum must be registered or registry eligible radiologic technologists by the ARRT.*

Course work prepares the technologist to provide patient care and perform studies utilizing imaging equipment, professional communication, and quality assurance in scheduled and emergency procedures through academic and clinical studies.

Graduates may be eligible to sit for the American Registry of Radiologic Technologist Advanced-Level testing in Computed Tomography Imaging. They may find employment in facilities which perform these imaging procedures.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr

### SUMMER (SECOND HALF TERM)

CAT 210	CT Physics and Equipment	3	0	0	3
CAT 211	CT Procedures	<u>4</u>	<u>0</u>	<u>0</u>	<u>4</u>
		7	0	0	7

### FALL

CAT 231	CT Clinical Practicum	<u>0</u>	<u>0</u>	<u>33</u>	<u>11</u>
		0	0	33	11

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Written recommendations completed on the college approved form.
3. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
4. Completion of program orientation requirements which may include observational hours prior to acceptance.
5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course

requirements.

6. Completion of the **Forsyth Tech Student Medical Form.**

## Program Information:

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; grade point average from accredited Radiography program; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, CAT or MRI prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

**TOTAL CREDIT HOURS: 18**

# COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING TECHNOLOGY

**D 45 20 0**

**Technical Specialty Diploma**

**Day**

## CURRICULUM DESCRIPTION

The Computed Tomography and Magnetic Resonance Imaging Technology curriculum, a specialty for radiographers, prepares the individual to use specialized equipment to visualize cross-sectional anatomical structures and aid physicians in the demonstration of pathologies and disease processes. *Individuals entering this curriculum must be registered or registry eligible radiologic technologists by the ARRT.*

Course work prepares the technologist to provide patient care and perform studies utilizing imaging equipment, professional communication, and quality assurance in scheduled and emergency procedures through academic and clinical studies.

Graduates may be eligible to sit for the American Registry of Radiologic Technologist Advanced-Level testing in Computed Tomography and/or Magnetic Resonance Imaging. They may find employment in facilities which perform these imaging procedures.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr	

### SUMMER (SECOND HALF TERM)

CAT 210 CT Physics and Equipment	3	0	0	3	
CAT 211 CT Procedures	4	0	0	4	
	7	0	0	7	

### FALL

CAT 231 CT Clinical Practicum	0	0	33	11	
ENG 111 Expository Writing*					
<b>OR</b>					
ENG 114 Professional Research and Reporting	3	0	0	3	
	3	0	33	14	

## SPRING

BIO 163 Basic Anat. and Physiology**	(4)	(2)	(0)	(5)	
<b>OR</b>					
BIO 271 Pathophysiology	3	0	0	3	
MRI 210 MRI Physics and Equipment	3	0	0	3	
MRI 211 MRI Procedures	4	0	0	4	
MRI 227 MRI Clinical Practicum	0	0	21	7	
	10	0	21	17	
	(11)	(2)	(21)	(19)	

## SUMMER (FIRST HALF TERM)

MRI 224 MRI Clinical Practicum	0	0	12	4	
	0	0	12	4	

\* If a student has credit for ENG 111 at time of program entry, then ENG 114 will be required to meet the general education requirement.

\*\* If a student has credit for BIO 163 at time of program entry, then BIO 271 will be required to meet the general education requirement.

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Written recommendations completed on the college approved form.
3. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
4. Completion of program orientation requirements which may include observational hours prior to acceptance.
5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
6. Completion of the **Forsyth Tech Student Medical Form.**

## Program Information:

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written

communication, and algebra; grade point average from accredited Radiography program; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, CAT or MRI prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

**TOTAL CREDIT HOURS: 42 (44)**



# COMPUTER ENGINEERING TECHNOLOGY

**A 40 16 0                      A.A.S.                      Day**

## CURRICULUM DESCRIPTION

The Computer Engineering Technology curriculum provides the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer controlled equipment. It includes training in both hardware and software, emphasizing operating systems concepts to provide a unified view of computer systems.

Course work includes mathematics, physics, electronics, digital circuits and programming, with emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include communications, networks, operating systems, programming languages, Internet configuration and design, and industrial applications.

Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring a knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

### FALL - 1st Year

CIS 111	Basic PC Literacy	1	2	2
EGR 131	Intro to Elect. Tech.	1	2	2
ELC 131	DC/AC Circuit Analysis	4	3	5
ENG 111	Expository Writing	3	0	3
MAT 121	Algebra/Trigonometry I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>11</b>	<b>9</b>	<b>15</b>

### SPRING - 1st Year

CET 111	Computer Upgrade/ Repair I	2	3	3
CIS 130	Survey of Operating Systems	2	3	3
ELN 131	Elect. Devices/Circuits	3	3	4
ENG 114	Professional Research and Reporting	3	0	3
MAT 122	Algebra/Trigonometry II	<u>2</u>	<u>2</u>	<u>3</u>
		<b>12</b>	<b>11</b>	<b>16</b>

## SUMMER - 1st Year

CET 222	Comp. Architecture	2	0	2
ELN 132	Linear IC Applications	3	3	4
ELN 133	Digital Electronics	<u>3</u>	<u>3</u>	<u>4</u>
		<b>8</b>	<b>6</b>	<b>10</b>

## FALL - 2nd Year

CET 211	Comp. Upgrade/ Repair II	2	3	3
CSC 134	C++ Programming	2	3	3
ENG 131	Intro. to Literature	3	0	3
ELN 232	Intro. to Microprocessors	3	3	4
ELN 237	Local Area Networks	<u>2</u>	<u>3</u>	<u>3</u>
		<b>12</b>	<b>12</b>	<b>16</b>

## SPRING - 2nd Year

CET 212	Integrated Mfg. Systems	1	3	2
ELN 233	Microprocessor Systems	3	3	4
ELN 238	Advanced LANs	2	3	3
PHY 131	Physics - Mechanics	3	2	4
----	Social/Behavioral Science			
	Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>12</b>	<b>11</b>	<b>16</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. Three units of math beginning with Algebra I.
2. One unit of keyboarding.
3. High school physics recommended.

**TOTAL CREDIT HOURS: 73**

# COMPUTER PROGRAMMING

A 25 13 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

This curriculum prepares individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, computer operators, systems technicians, database specialists, computer specialists, software specialists, or information systems managers.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cr

### FALL - 1st Year

CIS 111	Basic PC Literacy	1	2	2
CIS 115	Intro to Prog & Logic	2	2	3
CSC 139	Introduction to Visual Basic	2	3	3
ENG 115	Oral Communication	3	0	3
MAT 115	Mathematical Models	3	0	3
		11	7	14

### SPRING - 1st Year

CIS 130	Survey of Operating Systems	2	3	3
CSC 135	COBOL Programming	2	3	3
ENG 111	Expository Writing	3	0	3
NET 110	Data Communication/Networking	2	2	3
PSY 150	General Psychology	3	0	3
		12	8	15

### SUMMER - 1st Year

CIS 152	Database Concepts and Apps	2	2	3
CIS 244	Operating Systems - AS/400	2	3	3
	<b>OR</b>			
CIS 246	Operating Systems - UNIX	2	3	3
CSC 134	C++ Programming	2	3	3
ENG 114	Professional Research and Reporting	3	0	3
		9	8	12

### FALL - 2nd Year

ACC 120	Principles of Accounting I	3	2	4
CIS 286	Systems Analysis and Design	3	0	3
CSC 138	RPG Programming	2	3	3
CSC 143	Object-Oriented Programming	2	3	3
----	Humanities/ Fine Arts Elective (See your advisor.)	3	0	3
		13	8	16

### SPRING - 2nd Year

CIS 288	Systems Project	1	4	3
CSC 235	Advanced COBOL	2	3	3
CSC 238	Advanced RPG	2	3	3
CSC 298	Seminar in Programming	2	3	3
		7	13	12

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I.
2. High school accounting recommended.
3. High school computer basics recommended.
4. High school geometry recommended.
5. High school keyboarding recommended.

**TOTAL CREDIT HOURS: 69**

# COMPUTER PROGRAMMING

A 25 13 0

A.A.S.

Evening

## CURRICULUM DESCRIPTION

This curriculum prepares individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, computer operators, systems technicians, database specialists, computer specialists, software specialists, or information systems managers.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr
<b>FALL - 1st Year</b>			
CIS 111 Basic PC Literacy	1	2	2
CIS 115 Intro. to Prog & Logic	2	2	3
CSC 139 Introduction to Visual Basic	2	3	3
ENG 115 Oral Communication	3	0	3
MAT 115 Mathematical Models	<u>3</u>	<u>0</u>	<u>3</u>
	<b>11</b>	<b>7</b>	<b>14</b>

## SPRING - 1st Year

CIS 130 Survey of Operating Systems	2	3	3
CIS 135 COBOL Programming	2	3	3
ENG 111 Expository Writing	3	0	3
NET 110 Data Communication/ Networking	2	2	3
PSY 150 General Psychology	<u>3</u>	<u>0</u>	<u>3</u>
	<b>12</b>	<b>8</b>	<b>15</b>

## SUMMER - 1st Year

CIS 152 Database Concepts and Apps	2	2	3
CIS 244 Operating Systems - AS/400	2	3	3
<b>OR</b>			
CIS 246 Operating Systems - UNIX	2	3	3
CSC 134 C++ Programming	2	3	3
ENG 114 Professional Research and Reporting	<u>3</u>	<u>0</u>	<u>3</u>
	<b>9</b>	<b>8</b>	<b>12</b>

## FALL - 2nd Year

ACC 120 Principles of Accounting I	3	2	4
CIS 286 Systems Analysis and Design	3	0	3
CSC 138 RPG Programming	2	3	3
CSC 143 Object-Oriented Programming	2	3	3
--- - --- Humanities/ Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
	<b>13</b>	<b>8</b>	<b>16</b>

## SPRING - 2nd Year

CIS 288 Systems Project	1	4	3
CSC 235 Advanced COBOL	2	3	3
CSC 238 Advanced RPG	2	3	3
CSC 298 Seminar in Programming	<u>2</u>	<u>3</u>	<u>3</u>
	<b>7</b>	<b>13</b>	<b>12</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I.
2. High school accounting recommended.
3. High school computer basics recommended.
4. High school geometry recommended.
5. High school keyboarding recommended.

**TOTAL CREDIT HOURS: 69**

# COMPUTER PROGRAMMING

D 25 13 0

Diploma

Day and Evening

## CURRICULUM DESCRIPTION

This curriculum prepares individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, computer operators, systems technicians, database specialists, computer specialists, software specialists, or information systems managers.

## FALL - 2nd Year

CIS 286	Systems Analysis and Design	3	0	3
CSC 138	RPG Programming	2	3	3
ENG 111	Expository Writing	<u>3</u>	<u>0</u>	<u>3</u>
		8	3	9

## SPRING - 2nd Year

CSC 298	Seminar in Programming	<u>2</u>	<u>3</u>	<u>3</u>
		2	3	3

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I.
2. High school accounting recommended.
3. High school computer basics recommended.
4. High school geometry recommended.
5. High school keyboarding recommended.

**TOTAL CREDIT HOURS: 38**

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

### FALL - 1st Year

CIS 111	Basic PC Literacy	1	2	2
CIS 115	Intro to Prog & Logic	2	2	3
CSC 139	Introduction to Visual Basic	<u>2</u>	<u>3</u>	<u>3</u>
		5	7	8

### SPRING - 1st Year

CIS 130	Survey of Operating Systems	2	3	3
CSC 135	COBOL Programming	2	3	3
MAT 115	Mathematical Models	<u>3</u>	<u>0</u>	<u>3</u>
		7	6	9

### SUMMER - 1st Year

CIS 152	Database Concepts and Apps	2	2	3
CIS 244	Operating Systems - AS/400	2	3	3
	<b>OR</b>			
CIS 246	Operating Systems - UNIX	2	3	3
ENG 115	Oral Communication	<u>3</u>	<u>0</u>	<u>3</u>
		7	5	9



# COMPUTER PROGRAMMING

**C 25 13 0                      Certificate                      Day and Evening**

## CURRICULUM DESCRIPTION

This curriculum prepares individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, computer operators, systems technicians, database specialists, computer specialists, software specialists, or information systems managers.

## CURRICULUM BY SEMESTERS

Course Title	Hours	Per	Week	
	C	I	L	B    Cr

### FALL

CIS 111 Basic PC Literacy	1	2	2	
CIS 115 Intro to Prog and Logic	2	2	3	
CSC 139 Intro to Visual Basic	<u>2</u>	<u>3</u>	<u>3</u>	
	<b>5</b>	<b>7</b>	<b>8</b>	

### SPRING

CIS 130 Survey of Operating Systems	2	3	3	
CIS 152 Database Concepts and Apps	<u>2</u>	<u>2</u>	<u>3</u>	
	<b>4</b>	<b>5</b>	<b>6</b>	

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I.
2. High school accounting recommended.
3. High school computer basics recommended.
4. High school geometry recommended.
5. High school keyboarding recommended.

**TOTAL CREDIT HOURS: 14**

# CRIMINAL JUSTICE TECHNOLOGY

A 55 18 0

A.A.S.

Day and Evening

## CURRICULUM DESCRIPTION

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections, and security service. The criminal justice system's role within society will be explored.

Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

## CURRICULUM COURSES

Course Title	Semester	Hours	Credit
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### CORE COURSES

CJC 111	Introduction to Criminal Justice	3
CJC 112	Criminology	3
CJC 113	Juvenile Justice	3
CJC 131	Criminal Law	3
CJC 212	Ethics and Community Relations	3
CJC 221	Investigative Principles	4
CJC 231	Constitutional Law	3

### COE

COE 111	Co-op Work Experience	1
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### ENGLISH

A minimum of 6 hours is required in English.

Required:

ENG 111	Expository Writing	3
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A student may choose 3 hours from any of the following:

ENG 112	Argument-Based Research	3
<b>OR</b>		
ENG 113	Literature-Based Research	3
<b>OR</b>		
ENG 114	Professional Research and Reporting	3

It is highly recommended that Criminal Justice students take ENG 112. If you plan to transfer to a four-year college or university, check with that school's admissions office before taking your second semester of English.

### MATHEMATICS

A minimum of 6 hours is required in Mathematics.

MAT 115	Mathematical Models	3
MAT 151	Statistics I	3

If you plan to transfer to a four-year college or university, check with that school's admissions office before taking mathematics.

Prerequisite:

High School Algebra I

**OR**

MAT 070 Introductory Algebra

### POLITICAL SCIENCE

A minimum of 3 hours is required in Political Science.

POL 120	American Government	3
<b>OR</b>		
POL 130	State and Local Government	3

### PSYCHOLOGY

A minimum of 6 hours is required in Psychology.

PSY 150	General Psychology	3
<b>AND</b>		
PSY 281	Abnormal Psychology	3

### OTHER CRIMINAL JUSTICE COURSES

A minimum of 29 hours must be selected from the following. All Criminal Justice students must take CJC 251 and CJC 252.

CJC 121	Law Enforcement Operations	3
CJC 132	Court Procedures and Evidence	3
CJC 141	Corrections	3
CJC 198	Seminar in Criminal Justice	3
CJC 211	Counseling	3
CJC 214	Victimology	3
CJC 215	Organization and Administration	3
CJC 222	Criminalistics	3
CJC 232	Civil Liability	3
CJC 233	Correctional Law	3
CJC 241	Community-Based Corrections	3
CJC 251	Forensic Chemistry I	4

*Continued on next page.*

CJC 252	Forensic Chemistry II	4
CJC 293	Selected Topics in Criminal Justice	3

Prerequisite:

High School Chemistry

**OR**

CHM 090 Chemistry Concepts

### **HUMANITIES/FINE ARTS ELECTIVE**

A minimum of 3 hours must be selected from the following.

**\*\* Choose Humanities/Fine Arts Elective from the following:**

ART 111	Art Appreciation	3	0	0	3
ENG 125	Creative Writing	3	0	0	3
ENG 131	Introduction to Literature	3	0	0	3
ENG 231	American Literature I	3	0	0	3
ENG 232	American Literature II	3	0	0	3
ENG 241	British Literature I	3	0	0	3
ENG 242	British Literature II	3	0	0	3
ENG 262	World Literature II	3	0	0	3
ENG 273	African-American Literature	3	0	0	3
HUM110	Technology and Society	3	0	0	3
HUM121	The Nature of America	3	0	0	3
HUM160	Introduction to Film	3	0	0	3
MUS 110	Music Appreciation	3	0	0	3
PHI 215	Philosophical Issues	3	0	0	3
PHI 240	Introduction to Ethics	3	0	0	3
REL 110	World Religions	3	0	0	3
SPA 111	Elementary Spanish I	3	0	0	3

The Criminal Justice Technology curriculum is certified by the N. C. Department of Justice Criminal Justice Education and Standards Commissions.

**TOTAL CREDIT HOURS: 73**

# CRIMINAL JUSTICE TECHNOLOGY

## Latent Evidence Concentration

**A 55 18 A**

**A.A.S.**

**Day and Evening**

### CURRICULUM DESCRIPTION

Latent Evidence is a concentration under the curriculum title of Criminal Justice Technology. This curriculum is designed to provide knowledge of latent evident systems and operations. Study will focus on local, state, and federal law enforcement, evidence procession and procedures.

Emphasis on latent evidence: Fingerprint classification, identification and chemical development, photography, and footwear and tire-track identification, and crime scene processing. Additional study topics may include: Issues and concepts of communications and use of computers and computer assisted design programs in crime scene technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, and correctional agencies. Examples include: Latent Evidence Technicians with sheriff and police departments, State Bureau of Investigations, and related federal agencies.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
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**Cl Lb Cn Cr**

#### FALL - 1st Year

CJC 111 Intro to Criminal Justice	3	0	0	3
CJC 112 Criminology	3	0	0	3
CJC 144 Crime Scene Processing	2	3	0	3
CJC 245 Friction Ridge Analysis	2	3	0	3
ENG 111 Expository Writing	3	0	0	3
PSY 150 General Psychology	3	0	0	3
	<b>16</b>	<b>6</b>	<b>0</b>	<b>18</b>

#### SPRING - 1st Year

CJC 113 Juvenile Justice	3	0	0	3
CJC 131 Criminal Law	3	0	0	3
CJC 132 Court Procedure and Evidence	3	0	0	3
CJC 246 Advance Friction Ridge Analysis	2	3	0	3
ENG 112 Argument-Based Research	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3
	<b>16</b>	<b>5</b>	<b>0</b>	<b>18</b>

### SUMMER - 1st Year

CJC 114 Investigative Photography	1	2	0	2
COE 111 Co-op Work Experience	0	0	10	1
---- Humanities/Fine Arts Elective**	3	0	0	3
	<b>4</b>	<b>2</b>	<b>10</b>	<b>6</b>

### FALL - 2nd Year

CJC 146 Trace Evidence	2	3	0	3
CJC 212 Ethics and Community Relations	3	0	0	3
CJC 221 Investigative Principles	3	2	0	4
CJC 251 Forensic Chemistry I	3	2	0	4
MAT 151 Statistics	3	0	0	3
	<b>14</b>	<b>7</b>	<b>0</b>	<b>17</b>

### SPRING - 2nd Year

CJC 145 Crime Scene CAD	2	3	0	3
CJC 222 Criminalistics	3	0	0	3
CJC 231 Constitutional Law	3	0	0	3
CJC 244 Footwear & Tire Imprints	2	3	0	3
CJC 252 Forensic Chemistry II	3	2	0	4
	<b>13</b>	<b>8</b>	<b>0</b>	<b>16</b>

\*\* Choose Humanities/Fine Arts Elective from the following:

ART 111 Art Appreciation	3	0	0	3
ENG 125 Creative Writing	3	0	0	3
ENG 131 Introduction to Literature	3	0	0	3
ENG 231 American Literature I	3	0	0	3
ENG 232 American Literature II	3	0	0	3
ENG 241 British Literature I	3	0	0	3
ENG 242 British Literature II	3	0	0	3
ENG 262 World Literature II	3	0	0	3
ENG 273 African-American Literature	3	0	0	3
HUM110 Technology and Society	3	0	0	3
HUM121 The Nature of America	3	0	0	3
HUM160 Introduction to Film	3	0	0	3
MUS 110 Music Appreciation	3	0	0	3
PHI 215 Philosophical Issues	3	0	0	3
PHI 240 Introduction to Ethics	3	0	0	3
REL 110 World Religions	3	0	0	3
SPA 111 Elementary Spanish I	3	0	0	3

**TOTAL CREDIT HOURS: 76**



## DEVELOPMENTAL EDUCATION PROGRAM

### CURRICULUM DESCRIPTION

The Developmental Education Program provides students with an opportunity to build academic skills and acquire the background which should facilitate success in their desired curriculum.

For applicants to a degree curriculum who, on the basis of test results and past performance, do not qualify for immediate admission to their chosen program of study, noncredit developmental course work is available and may be required as a prerequisite for registration in specific credit courses. Students taking the required developmental work may also take specified courses within their desired curriculum.

Students may transfer all applicable credit courses into their curriculum when the criteria have been met and developmental and selected curriculum courses have been completed. All credit courses within the student's chosen curriculum will then be applied toward graduation.

Some developmental courses are also open to students who wish to take them for personal benefit.

This program offers a series of courses for preparation, remediation, and guidance for students who, for a variety of reasons, do not meet the specific entrance requirements for the regular curriculums of their choice. Students who do meet the minimum entrance requirements but whose previous academic records indicate that they may have difficulty in successfully completing their curriculums are also advised to complete the necessary course work in the Developmental Education program.

The students' academic program will be individually designed to meet their specific preparatory and remedial needs. The courses will be selected from the developmental offerings and from technical and/or vocational credit courses.

### COURSE OFFERINGS

Course Title	Hours Per Week		
	Cl	Lb	Cr
ACA 111 College Student Success	1	0	1
ACA 118 College Study Skills	1	2	2
BIO 090 Foundations of Biology	3	2	0(4)
BIO 094 Concepts of Human Biology	3	2	0(4)
CHM 090 Chemistry Concepts	3	2	0(4)
CHM 092 Fundamentals of Chemistry	3	2	0(4)
EFL 091 Composition I	3	2	0(4)
ENG 060 Speaking English Well	2	0	0(2)
ENG 070 Basic Language Skills	2	2	0(3)
ENG 080 Writing Foundations	3	2	0(4)
ENG 085 Reading and Writing Foundations	5	0	0(5)
ENG 085A Reading and Language ESS Lab	0	2	0(1)
ENG 090 Composition Strategies	3	0	0(3)
ENG 090A Comp Strategies Lab	0	2	0(1)
ENG 095 Reading and Comp Strategies	5	0	0(5)
ENG 095A Reading and Language ESS Lab	0	2	0(1)
MAT 060 Essential Mathematics	3	2	0(4)
MAT 070 Introductory Algebra	3	2	0(4)
MAT 075 Geometry	3	2	0(4)
MAT 080 Intermediate Algebra	3	2	0(4)
MAT 090 Accelerated Algebra	3	2	0(4)
RED 070 Essential Reading Skills	3	2	0(4)
RED 080 Intro to College Reading	3	2	0(4)
RED 090 Improved College Reading	3	2	0(4)

\*Equivalent credit hours shown in parentheses

## EARLY CHILDHOOD ASSOCIATE

A 55 22 0

A.A.S.

Day and Evening

### CURRICULUM DESCRIPTION

The Early Childhood Associate curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school age programs.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		CI	Lb	Cr

#### FALL - 1st Year

ACA 111* College Student Success	1	0	1	
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**OR**

CIS 111 Basic PC Literacy	(1)	(2)	(2)	
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EDU 144 Child Development I	3	0	3	
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EDU 146 Child Guidance	3	0	3	
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EDU 119 Early Childhood Education	3	2	4	
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**OR**

EDU 111 Early Childhood Credential I	(2)	(0)	(2)	
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**AND**

EDU 112 Early Childhood Credential II	(2)	(0)	(2)	
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**OR**

EDU 113 Family and Early Childhood Credential	(2)	(0)	(2)	
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ENG 111 Expository Writing	3	0	3	
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SOC 210 Introduction to Sociology	3	0	3	
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**16 0-4 17**

**(17) (18)**

\* May be waived by department chair.

### SPRING - 1st Year

COE 111 Cooperative Education	0	10	1	
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COE 115 Work Exp. Seminar I	1	0	1	
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EDU 131 Child, Family, and Community	3	0	3	
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EDU 145 Child Development II	3	0	3	
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ENG 112 Argument-Based Research	3	0	3	
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PSY 150 General Psychology	3	0	3	
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**13 10 14**

### FALL - 2nd Year

COE 121 Co-Op Work II	0	10	1	
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COE 125 Work Experience Seminar II	1	0	1	
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EDU 151 Creative Activities	3	0	3	
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EDU 185 Cognitive and Language Act.	3	0	3	
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**OR**

EDU 282 Early Childhood Literature	3	0	3	
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EDU 234 Infants, Toddlers and Two's	3	0	3	
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**OR**

EDU 235 School Age Development and Programs	(2)	(0)	(2)	
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EDU 252 Math and Science Activities	3	0	3	
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**13 10 14**

**(12)(10)(13)**

### SPRING - 2nd Year

COE 131 Co-Op Work Experience III	0	10	1	
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COE 135 Work Experience Seminar III	1	0	1	
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EDU 221 Children with Special Needs	3	0	3	
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EDU 259 Curriculum Planning	3	0	3	
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**OR**

EDU 275 Effective Teacher Training	(2)	(0)	(2)	
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EDU 261 Early Childhood Adm. I	2	0	2	
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MAT 115 Mathematical Models	2	2	3	
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**11 10 13**

**(10)(10)(12)**

An additional 9 SHC of major hours in HUM and PSY, SOC, or HSE is required. For course selection, see your advisor.

**An additional graduation requirement is:**

Certification in CPR and First Aid

*Continued on next page.*

**NOTE**

Individuals wishing to receive state credentials in Child Care Administration need to take the following:

EDU 262	Early Childhood Admin. II	3	0	3
EDU 263	Development of School Age Programs	2	0	2

**TOTAL CREDIT HOURS: 65-68**

# EARLY CHILDHOOD ASSOCIATE

C 55 22 0

Certificate

Day and Evening

## CURRICULUM DESCRIPTION

The Early Childhood Associate Certificate prepares individuals to work with children from infancy to middle childhood in diverse learning environments. Students will experience the foundation for Early Childhood Development.

The course work includes child growth and development; care and guidance of children; and an elective in an area of interest for the working professional. Course work includes alternative delivery instruction options.

Certificate graduates can identify appropriate practices in the early childhood setting based on a theoretical foundation. The Certificate is a part of the Early Childhood Career Development Continuum.

## CURRICULUM

Course Title	Hours Per Week		
	Cl	Lb	Cr
EDU 119 Early Childhood Education	3	2	4
<i>OR</i>			
EDU 111 Early Childhood Credential I	(2)	(0)	(2)
<i>AND</i>			
EDU 112 Early Childhood Credential II	(2)	(0)	(2)
<i>OR</i>			
EDU 113 Family/Early Childhood Credential	(2)	(0)	(2)
EDU 144 Child Development I	3	0	3
EDU 145 Child Development II	3	0	3
EDU 146 Child Guidance	3	0	3
	<b>12</b>	<b>2</b>	<b>13</b>
	<b>(13)</b>	<b>(0)</b>	<b>(13)</b>

*Select a minimum of 3 additional semester credits from the courses below:*

EDU 131 Children, Family, & Community	3	0	3
EDU 151 Creative Activities	3	0	3
EDU 221 Children with Special Needs	3	0	3
EDU 261 Early Childhood Administration I	2	0	2
EDU 234 Infants, Toddlers, & Two's	3	0	3

**TOTAL CREDIT HOURS: 16**



# EARLY CHILDHOOD ASSOCIATE

## Administration

C 55 22 0 A

Certificate

Day and Evening

### CURRICULUM DESCRIPTION

The Early Childhood Administration Certificate prepares individuals to supervise and manage an early childhood program in addition to developing a foundation in early childhood developmental education.

Course work includes policies and procedures, and management of early childhood education programs. Topics include leadership, financial management, staff organization and management, program development, community outreach as well as a working knowledge of the rules and regulations of the NC Division of Child Development Day Care Licensing. Alternative delivery instruction options are available for the working professional.

Certificate graduates can develop and implement appropriate programs in early childhood education. Additionally, students successfully meet the requirement for the NC Early Childhood Administration Credential.

### CURRICULUM

Course Title	Hours Per Week		
	Cl	Lb	Cr
EDU 111 Early Childhood Credential I	2	0	2
EDU 112 Early Childhood Credential II	2	0	2
EDU 131 Children, Family, & Community	3	0	3
EDU 144 Child Development I	3	0	3
EDU 145 Child Development II	3	0	3
EDU 261 Early Childhood Administration I	2	0	2
EDU 262 Early Childhood Administration II	<u>3</u>	<u>0</u>	<u>3</u>
	<b>18</b>	<b>0</b>	<b>18</b>

### Program Information:

A North Carolina Early Childhood Administration credential is awarded upon completion of Early Childhood Administration I and II plus 7 semester hours ECE/CD plus Level I approved portfolio activities.

**TOTAL CREDIT HOURS: 18**

## EARLY CHILDHOOD ASSOCIATE

### School-Age

**C 55 22 0 A**

**Certificate**

**Day and Evening**

Pending State Board approval, this curriculum will be offered as a Forsyth Technical Community College curriculum beginning Fall 2000.

### CURRICULUM DESCRIPTION

The School-Age Certificate is a concentration under the curriculum of Early Childhood Associate. This certificate prepares individuals to work with children from preschool to middle childhood in diverse learning environments.

Coursework includes child growth and development, physical/nutritional needs of children, care and guidance of children, and communication with parents and teachers. Students will foster the cognitive/language, physical motor, social/emotional and creative development.

Certificate graduates are prepared to plan and implement developmentally appropriate programs in early childhood and school age settings. Employment opportunities include child development and childcare programs, preschools, public and private schools, recreation centers, Head Start Programs and school-age programs.

### Electives: Choose One

EDU 131	Child, Family, and Community	3	0	3
EDU 261	Early Child Administration I	2	0	2
EDU 275	Effective Teacher Training	2	0	2
EDU 263	Development School-Age Program	2	0	2

**TOTAL CREDIT HOURS: 17 or (18)**

**Total hours vary depending on class selection.**

### CURRICULUM

Course Title	Hours Per Week	CI	Lb	Cr
EDU 111 Early Childhood Credential I <i>AND</i>	2	0	2	
EDU 112 Early Childhood Credential II <i>OR</i>	2	0	2	
EDU 119 Early Childhood Education	(3)	(2)	(4)	
EDU 145 Child Development II	3	0	3	
EDU 146 Child Guidance	3	0	3	
EDU 221 Exceptional Children	3	0	3	
EDU 235 School-Age Development and Program	2	0	2	
	<b>14</b>	<b>0</b>	<b>15</b>	
	<b>(15)</b>	<b>(2)</b>	<b>(15)</b>	

# ELECTRICAL/ELECTRONICS TECHNOLOGY

D 35 22 0

Diploma

Day

## CURRICULUM DESCRIPTION

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice, assisting in the layout, installation, and maintenance of electrical/electronic systems.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

BPR 130	Blueprint Reading/Const	1	2	2
ELC 112	DC/AC Electricity	3	6	5
ELC 113	Basic Wiring I	2	6	4
MAT 101	Applied Mathematics I	<u>2</u>	<u>2</u>	<u>3</u>
		8	16	14

### SPRING

ELC 114	Basic Wiring II	2	6	4
ELC 117	Motors and Controls	2	6	4
ELC 118	National Electrical Code	1	2	2
ENG 101	Applied Communications I	<u>3</u>	<u>0</u>	<u>3</u>
		8	14	13

### SUMMER

CIS 111	Basic PC Literacy	1	2	2
ELC 115	Industrial Wiring	2	6	4
ELN 229	Industrial Electronics	<u>2</u>	<u>4</u>	<u>4</u>
		5	12	10

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

One unit of algebra recommended.

**TOTAL CREDIT HOURS: 37**

# ELECTRICAL/ELECTRONICS TECHNOLOGY

C 35 22 0

Certificate

Day

## CURRICULUM DESCRIPTION

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice, assisting in the layout, installation, and maintenance of electrical/electronic systems.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

ELC 112 DC/AC Electricity	3	6	5
ELC 113 Basic Wiring I	<u>2</u>	<u>6</u>	<u>4</u>
	5	12	9

### SPRING

ELC 114 Basic Wiring II	2	6	4
ELC 118 National Electrical Code	<u>1</u>	<u>2</u>	<u>2</u>
	3	8	6

**TOTAL CREDIT HOURS: 15**



# ELECTRONIC SERVICING TECHNOLOGY

## D 50 12 0 Diploma Day

### CURRICULUM DESCRIPTION

The Electronic Servicing Technology curriculum is designed to provide basic knowledge and skills required in the installation, maintenance, and servicing of electronic components and systems. Men and women will gain entry level skills necessary for success in an ever changing high-technology world.

Students will learn to install, maintain, and service components in both consumer and industrial electronic fields. This includes but is not limited to radios, television, audio/video equipment, digital and microprocessor controlled systems, computers, and monitors.

Graduates should qualify for employment in a wide variety of businesses and industries that require electronic servicing technicians. Opportunities exist in areas such as consumer electronic repairs, business systems, and industrial electronic servicing.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	CL	Lb	Cr

#### FALL

ELC 140	Fund. of DC/AC Circuits	5	6	7
ELN 140	SemiConductor Devices	4	6	6
MAT 101	Applied Mathematics I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>11</b>	<b>14</b>	<b>16</b>

#### SPRING

ELN 141	Digital Fundamentals	4	6	6
ELN 241	Consumer Electronics	4	6	6
ELN 243	Communication Electronics	2	3	3
PHY 102	Fundamentals of Physics II	<u>3</u>	<u>2</u>	<u>4</u>
		<b>13</b>	<b>17</b>	<b>19</b>

#### SUMMER

ELN 142	Video Systems	7	9	10
ENG 101	Applied Communications I	<u>3</u>	<u>0</u>	<u>3</u>
		<b>10</b>	<b>9</b>	<b>13</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

One unit of algebra recommended.

**TOTAL CREDIT HOURS: 48**

# ELECTRONICS ENGINEERING TECHNOLOGY

**A 40 20 0**

**A.A.S.**

**Day**

## CURRICULUM DESCRIPTION

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication system, and power electronic systems.

A broad based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		CI	Lb	Cr

### FALL - 1st Year

CIS 111 Basic PC Literacy	1	2	2	
EGR 131 Intro to Elect. Tech.	1	2	2	
ELC 131 DC/AC Circuit Analysis	4	3	5	
ENG 111 Expository Writing	3	0	3	
MAT 121 Algebra/Trigonometry I	<u>2</u>	<u>2</u>	<u>3</u>	
	<b>11</b>	<b>9</b>	<b>15</b>	

### SPRING - 1st Year

CET 111 Computer Upgrade/ Repair I	2	3	3	
PHY 131 Physics - Mechanics	3	2	4	
ELN 131 Elect. Devices/Circuits	3	3	4	
ENG 114 Professional Research and Reporting	3	0	3	
MAT 122 Algebra/Trigonometry II	<u>2</u>	<u>2</u>	<u>3</u>	
	<b>13</b>	<b>10</b>	<b>17</b>	

## SUMMER - 1st Year

ELN 132 Linear IC Applications	3	3	4
ELN 133 Digital Electronics	3	3	4
MAT 223 Applied Calculus	<u>2</u>	<u>2</u>	<u>3</u>
	<b>8</b>	<b>8</b>	<b>11</b>

## FALL - 2nd Year

ELN 229 Industrial Electronics	2	4	4
ELN 232 Intro to Microprocessors	3	3	4
ELN 237 Local Area Networks	2	3	3
---- ---- Humanities/Fine Arts			
Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
	<b>10</b>	<b>10</b>	<b>14</b>

## SPRING - 2nd Year

ELN 233 Microprocessor Systems	3	3	4
ELN 260 Prog. Logic Controllers	3	3	4
PHY 133 Sound and Light	3	2	4
---- ---- Social/Behavioral Science			
Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
	<b>12</b>	<b>8</b>	<b>15</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. One unit of algebra.
2. High school physics recommended.

**TOTAL CREDIT HOURS: 72**

# ELECTRONICS ENGINEERING TECHNOLOGY

A 40 20 0

A.A.S.

Evening

## CURRICULUM DESCRIPTION

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication system, and power electronic systems.

A broad based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cr

### FALL - 1st Year

CIS 111 Basic PC Literacy	1	2	2
EGR 131 Intro to Elect. Tech.	1	2	2
ELC 131 DC/AC Circuit Analysis	4	3	5
MAT 121 Algebra/Trigonometry I	<u>2</u>	<u>2</u>	<u>3</u>
	<b>8</b>	<b>9</b>	<b>12</b>

### SPRING - 1st Year

CET 111 Computer Upgrade/ Repair I	2	3	3
ELN 131 Elect. Devices/Circuits	3	3	4
MAT 122 Algebra/Trigonometry II	2	2	3
PHY 131 Physics - Mechanics	<u>3</u>	<u>2</u>	<u>4</u>
	<b>10</b>	<b>10</b>	<b>14</b>

### SUMMER - 1st Year

ELN 132 Linear IC Applications	3	3	4
ELN 237 Local Area Networks	<u>2</u>	<u>3</u>	<u>3</u>
MAT 223 Applied Calculus	2	2	3
	<b>7</b>	<b>8</b>	<b>10</b>

### FALL - 2nd Year

ELN 133 Digital Electronics	3	3	4
ELN 229 Industrial Electronics	2	4	4
ENG 111 Expository Writing	3	0	3
---- Social/Behavioral Science Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
	<b>11</b>	<b>7</b>	<b>14</b>

### SPRING - 2nd Year

ELN 232 Intro. to Microprocessors	3	3	4
ELN 260 Prog. Logic Controllers	3	3	4
ENG 114 Professional Research and Reporting	3	0	3
---- Humanities/ Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
	<b>12</b>	<b>6</b>	<b>14</b>

### SUMMER - 2nd Year

ELN 233 Microprocessor Systems	3	3	4
PHY 133 Sound and Light	<u>3</u>	<u>2</u>	<u>4</u>
	<b>6</b>	<b>5</b>	<b>8</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. One unit of algebra.
2. High school physics recommended.

**TOTAL CREDIT HOURS: 72**

# ELECTRONICS ENGINEERING TECHNOLOGY

C 40 20 0

Certificate

Day

## CURRICULUM DESCRIPTION

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication system, and power electronic systems.

A broad based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

ELC 131	DC/AC Circuit Analysis	4	3	5
MAT 121	Algebra/Trigonometry I	<u>2</u>	<u>2</u>	<u>3</u>
		6	5	8

### SPRING

ELN 131	Elect. Devices/Circuits	<u>3</u>	<u>3</u>	<u>4</u>
		3	3	4

### SUMMER

ELN 133	Digital Electronics	<u>3</u>	<u>3</u>	<u>4</u>
		3	3	4

**TOTAL CREDIT HOURS: 16**



# EMERGENCY MEDICAL SCIENCE

A 45 34 0

A.A.S.

Day and Evening

This consortium curriculum is offered to students at Forsyth Technical Community College through an agreement with **Guilford Technical Community College**.

## CURRICULUM DESCRIPTION

The Emergency Medical Science curriculum is designed to prepare graduates to enter the workforce as paramedics. Additionally, the program can provide an Associate Degree for individuals desiring an opportunity for career enhancement.

The course of study provides the student an opportunity to acquire basic and advanced life support knowledge and skills by utilizing classroom instruction, practical laboratory sessions, hospital clinical experience, and field internships with emergency medical service agencies.

Students progressing through the program may be eligible to apply for both state and national certification exams. Employment opportunities include ambulance services, fire and rescue agencies, air medical services, specialty areas of hospitals, industry, educational institutions, and government agencies.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

### FALL - 1st Year

BIO 163	Applied Anatomy & Physiology	4	2	0	5
CIS 110	Introduction to Computers	2	2	0	3
	<b>OR</b>				
CIS 111	Basic PC Literacy	(1)	(2)	(0)	(2)
EMS 110	EMT Basic	4	6	0	6
EMS 111	Prehospital Environment	2	2	0	3
ENG 111	Expository Writing	3	0	0	3
		15	12	0	20
		(12)	(8)	(0)	(19)

### SPRING - 1st Year

EMS 120	Intermediate Intervention	2	3	0	3
EMS 121	Clinical Practicum I	0	0	6	2
EMS 130	Pharmacology I for EMS	1	2	0	2
EMS 131	Advanced Airway Management	1	2	0	2
ENG 112	Argument-Based Research	3	0	0	3
	<b>OR</b>				
ENG 113	Literature-Based Research	3	0	0	3
	<b>OR</b>				
ENG 114	Professional Research & Reporting	3	0	0	3
PHI 240	Intro to Ethics	3	0	0	3
	<b>OR</b>				
-----	Humanities/Fine Arts Elective (See your advisor.)	3	0	0	3
		10	7	6	15

### SUMMER - 1st Year

COE 121	Co-op Work Experience II	0	0	10	1
EMS 210	Advanced Patient Assessment	1	3	0	2
EMS 222	EMS Hospital Clinical II	0	0	6	2
EMS 270	Life Span Emergencies	2	2	0	3
		3	5	16	8

### FALL - 2nd Year

COE 131	Co-op Work Experience III	0	0	10	1
EMS 220	Cardiology	2	6	0	4
EMS 232	EMS Hospital Clinical III	0	0	6	2
EMS 260	Advanced Trauma Emergencies	1	3	0	2
PSY 150	General Psychology	3	0	0	3
		6	9	16	12

Continued on next page.

**SPRING - 2nd Year**

COE 211	Co-op Work					
	Experience IV	0	0	10	1	
COM120	Interpersonal					
	Communication	3	0	0	3	
EMS 150	Vehicle Ops, EMS					
	Communication	1	3	0	2	
EMS 240	Special Needs					
	Patients	1	3	0	2	
EMS 242	EMS Hospital					
	Clinical IV	0	0	6	2	
EMS 250	Advanced Medical					
	Emergencies	2	2	0	3	
		7	9	16	13	

**SUMMER - 2nd Year**

EMS 140	Rescue Scene					
	Management	1	6	0	3	
EMS 235	EMS Management	2	0	0	2	
EMS 285	EMS Capstone	1	3	0	2	
		4	9	0	7	

Some courses will be taught only on the Guilford Technical Community College campus. The location of specific courses was not available at time of printing.

**TOTAL CREDIT HOURS: 75 (74)**

# EMERGENCY MEDICAL SCIENCE / BRIDGING PROGRAM

A 45 34 0

A.A.S.

Day

This consortium curriculum is offered to students at Forsyth Technical Community College through an agreement with **Guilford Technical Community College**.

## CURRICULUM DESCRIPTION

The Emergency Medical Science curriculum is designed to prepare graduates to enter the workforce as paramedics. Additionally, the program can provide an Associate Degree for individuals desiring an opportunity for career enhancement.

The course of study provides the student an opportunity to acquire basic and advanced life support knowledge and skills by utilizing classroom instruction, practical laboratory sessions, hospital clinical experience, and field internships with emergency medical service agencies.

Students progressing through the program may be eligible to apply for both state and national certification exams. Employment opportunities include ambulance services, fire and rescue agencies, air medical services, specialty areas of hospitals, industry, educational institutions, and government agencies.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr
<b>FALL</b>				
BIO 163 Applied Anatomy & Physiology	4	2	5	
CIS 110 Introduction to Computers	2	2	3	
PSY 150 General Psychology	3	0	3	
<b>OR</b>				
---- ---- Social/Behavioral Science Elective (See your advisor.)	3	0	3	
ENG 111 Expository Writing	3	0	3	
	<b>12</b>	<b>4</b>	<b>14</b>	

## SPRING

EMS 280 EMS Bridging Course	2	2	3
ENG 112 Argument-Based Research	3	0	3
<b>OR</b>			
ENG 114 Professional Research & Reporting	3	0	3
COM 110 Intro to Interpersonal Communication	3	0	3
<b>OR</b>			
COM 120 Interpersonal Communication	3	0	3
PHI 240 Introduction to Ethics	3	0	3
<b>OR</b>			
----- ---- Humanities/Fine Arts Elective (See your advisor.)	3	0	3
	<b>11</b>	<b>2</b>	<b>12</b>

## SUMMER

EMS 140 Rescue Scene Mgt	1	6	3
EMS 235 EMS Management	2	0	2
	<b>3</b>	<b>6</b>	<b>5</b>

## TOTAL CREDIT HOURS: 31

Prerequisites for admission to the EMS Bridging Program include the following:

1. EMT-P Certification
2. Advanced Cardiac Life Support Certification
3. Basic Trauma Life Support Certification
4. Pediatric Advanced Life Support Certification
5. Documentation of 4000 hours patient care contact (1.5 years working a 24/48 hour schedule)

These certifications provide 45 semester hours of advanced placement for students who are accepted into the program and meet FTCC residency requirements.

With transcripts from outside colleges, a minimum of 25% of the program hours must be completed at Forsyth Tech.

# EMERGENCY MEDICAL SCIENCE / BRIDGING PROGRAM

A 45 34 0

A.A.S.

Evening

This consortium curriculum is offered to students at Forsyth Technical Community College through an agreement with Guilford Technical Community College.

## CURRICULUM DESCRIPTION

The Emergency Medical Science curriculum is designed to prepare graduates to enter the workforce as paramedics. Additionally, the program can provide an Associate Degree for individuals desiring an opportunity for career enhancement.

The course of study provides the student an opportunity to acquire basic and advanced life support knowledge and skills by utilizing classroom instruction, practical laboratory sessions, hospital clinical experience, and field internships with emergency medical service agencies.

Students progressing through the program may be eligible to apply for both state and national certification exams. Employment opportunities include ambulance services, fire and rescue agencies, air medical services, specialty areas of hospitals, industry, educational institutions, and government agencies.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week	CI	Lb	Cr
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### FALL - 1st Year

CIS 110	Introduction to Computers	2	2	3
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OR

CIS 111	Basic PC Literacy	(1)	(2)	(2)
ENG 111	Expository Writing	3	0	3

5 2 6

(4) (2) (5)

### SPRING - 1st Year

ENG 112	Argument-Based Research	3	0	3
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OR

ENG 114	Professional Research & Reporting	3	0	3
PSY 150	General Psychology	3	0	3

OR

-----	Social/Behavioral Science Elective (see your advisor)	3	0	3
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6 0 6

## SUMMER - 1st Year

COM110	Intro to Interpersonal Communication	3	0	3
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OR

COM120	Interpersonal Communication	3	0	3
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EMS 280	EMS Bridging Course	2	2	3
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5 2 6

## FALL - 2nd Year

BIO 163	Applied Anatomy & Physiology	4	2	5
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PHI 240	Introduction to Ethics	3	0	3
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OR

----	Humanities/Fine Arts Elective (See your advisor.)	3	0	3
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7 2 8

## SPRING - 2nd Year

EMS 140	Rescue Scene Mgt	1	6	3
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EMS 235	EMS Management	2	0	2
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3 6 5

## TOTAL CREDIT HOURS: 31 (30)

Prerequisites for admission to the EMS Bridging Program include the following:

1. EMT-P Certification
2. Advanced Cardiac Life Support Certification
3. Basic Trauma Life Support Certification
4. Pediatric Advanced Life Support Certification
5. Documentation of 4000 hours patient care contact (1.5 years working a 24/48 hour schedule)

These certifications provide 45 semester hours of advanced placement for students who are accepted into the program and meet FTCC residency requirements.

With transcripts from outside colleges, a minimum of 25% of the program hours must be completed at Forsyth Tech.



# FILM AND VIDEO PRODUCTION TECHNOLOGY

A 30 14 0

A.A.S.

Day

This consortium curriculum is offered to students at Forsyth Technical Community College through an agreement with **Piedmont Community College**.

## CURRICULUM DESCRIPTION

The Film and Video Production Technology curriculum prepares students for entry-level employment in production support and selected technical areas of film, video and associated media production. Instruction provides training for entry-level crew and/or production and post-production assistants in many moving image media forms.

The first year content includes exposure to the entire production process. Students are taught by industry professionals who provide extensive hands-on instruction. In the second year, students receive professional training by performing in various crew positions on actual production projects.

Graduates may find employment as entry-level crew and/or production assistants in: feature and short films, commercials, and industrial, educational, and documentary productions. Other opportunities include entry-level employment in pre-production and post-production areas for video, multimedia, and editing.

**First year courses are held either at Forsyth Tech or N.C. School of the Arts.**

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr	

### FALL - 1st Year

#### Forsyth Tech Campus:

ACA 111	College Student Success	1	0	0	1
CIS 110	Introduction to Computers	2	2	0	3
<b>OR</b>					
CIS 111	Basic PC Literacy	(1)	(2)	0	(2)
ENG 111	Expository Writing	3	0	0	3
FVP 111	Intro to Film & Video	2	2	0	3
FVP 112	Art Dept Operations I	1	6	0	3

#### N.C. School of the Arts Campus:

FVP 113	Grip & Electrical I	1	4	0	3
FVP 114	Camera & Lighting	2	3	0	3
		12	16	0	19
		(11)	(16)	(0)	(18)

### SPRING - 1st Year

#### Forsyth Tech Campus:

ENG 115	Oral Communications	3	0	0	3
FVP 120	Art Dept Operations II	1	4	0	3
----	Social/Behavioral Science Elective				
	(See your advisor.)	3	0	0	3

#### N.C. School of the Arts Campus:

FVP 115	Camera & Lighting II	2	3	0	3
FVP 116	Sound	2	3	0	3
FVP 130	Grip & Electrical II	1	4	0	3
		12	14	0	18

### SUMMER - 1st Year

**From this point on, all course work will be taken at Piedmont Community College.**

**Students may elect to take Co-op Work Experiences or Production Techniques during the Summer term.**

*Continued on next page.*

**FALL - 2nd Year**

FVP 117	Make-up & Wardrobe	2	3	0	3
	<b>OR</b>				
COE 112	Co-op Work Experience I	0	0	20	2
	<b>AND</b>				
COE 115	Work Experience Seminar I	1	0	0	1
FVP 211	Continuity & Locations	2	3	0	3
	<b>OR</b>				
COE 122	Co-op Work Experience II	0	0	20	2
	<b>AND</b>				
COE 125	Work Experience Seminar II	1	0	0	1
FVP 212	Production Techniques I	1	12	0	5
FVP 220	Editing I	2	3	0	3
MAT 115	Survey of Mathematics	3	0	0	3
----	Humanities/Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>11-13</b>	<b>15-21</b>	<b>0-40</b>	<b>20</b>

**SPRING - 2nd Year**

FVP 213	Production Techniques II	1	12	0	5
FVP 215	Production Management				
FVP 118	AV for Institutions	2	3	0	3
	<b>OR</b>				
FVP 221	Editing II	2	3	0	3
	<b>OR</b>				
FVP 227	Multimedia Production	2	3	0	3
FVP 238	Software Apps for FVP	2	3	0	3
----	Free Elective	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>10</b>	<b>21</b>	<b>0</b>	<b>17</b>

**TOTAL CREDIT HOURS: 74**

# FIRE PROTECTION TECHNOLOGY

**A 55 24 0**

**A.A.S.**

**Day**

This consortium curriculum is offered to students at Forsyth Technical Community College through an agreement with **Guilford Technical Community College**.

## CURRICULUM DESCRIPTION

The Fire Protection Technology curriculum is designed to provide individuals with technical and professional knowledge to make decisions regarding fire protection for both public and private sectors. It also provides a sound foundation for continuous higher learning in fire protection, administration, and management.

Course work includes classroom and laboratory exercises to introduce the student to various aspects of fire protection. Students will learn technical and administrative skills such as hydraulics, hazardous materials, arson investigation, fire protection safety, fire suppression management, law, and codes.

Graduates should qualify for employment or advancement in governmental agencies, industrial firms, insurance rating organizations, educational organizations, and municipal fire departments. Employed persons should have opportunities for skilled and supervisory-level positions within their current organizations.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cr

### FALL - 1st Year

CIS 110 Intro to Computers	2	2	3
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**OR**

CIS 111 Basic PC Literacy	(1)	(2)	(2)
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COM 120 Interpersonal Communication	3	0	3
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ENG 111 Expository Writing	3	0	3
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FIP 120 Intro to Fire Protection	2	0	2
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FIP 132 Building Construction	3	0	3
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**13 2 14  
(12) (2)(13)**

### SPRING - 1st Year

ENG 112 Argument-Based Research	3	0	3
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**OR**

ENG 113 Literature-Based Research	3	0	3
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**OR**

ENG 114 Professional Research & Reporting	3	0	3
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FIP 124 Fire Detection, Public Education	3	0	3
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FIP 128 Fire Detection and Investigation	3	0	3
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FIP ---* Elective	Hours Vary		
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MAT 115 Mathematical Models	2	2	3
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**OR**

MAT 140 Survey of Mathematics	(3)	(0)	(3)
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**Total hours vary depending on course selection**

### SUMMER - 1st Year

FIP 160 Fire Protection Electricity	2	0	2
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FIP 160A Fire Protection Electricity Lab	0	2	1
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FIP 164 OSHA Standards	2	0	2
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FIP 220 Fire Fighting Strategies	3	0	3
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---- ---- Social/Behavioral Science Elective (See your advisor.)	3	0	3
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**10 2 11**

### FALL - 2nd Year

FIP 148 Fixed, Portable Extinguishing Sys.	2	2	3
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FIP 152 Fire Protection Law	2	0	2
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FIP 230 Chemistry of Hazardous Materials	5	0	5
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FIP 276 Managing Fire Services	3	0	3
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---- ---- Humanities/Fine Arts Elective (See your advisor.)	3	0	3
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**15 2 16**

### SPRING - 2nd Year

FIP 136 Inspections Codes	3	0	3
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FIP 144 Sprinklers and Auto Alarms	2	2	3
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FIP 224 Instructional Methodology	3	0	3
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FIP 232 Hydraulics and Water Dist.	2	2	3
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FIP 244 Fire Protection Project	3	0	3
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FIP ---* Elective	Hours Vary		
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**Total hours vary depending on course selection**

*Continued on next page.*

*\*Select 6 semester hour credits from the following:*

FIP 140	Industrial Fire Protection	2	0	0	2
FIP 176	Haz Mat Operations	4	0	0	4
FIP 180	Wildland Fire Behavior	3	0	0	3
FIP 188	Intro to Wildland Forest	3	2	0	4
FIP 221	Adv Fire Fighting Strategies	3	0	0	3
FIP 228	Local Government Finance	2	0	0	2
FIP 231	Chemistry of Haz Mat	4	2	0	5
FIP 236	Emergency Management	2	0	0	2
FIP 240	Fire Service	2	0	0	2
FIP 256	Municipal Public Relations	2	0	0	2
FIP 264	Flam Prop Mat Rating	1	4	0	3

Some courses will be taught only on the Guilford Technical Community College campus. The location of specific courses was not available at time of printing.

**TOTAL CREDIT HOURS: 74**



## FUNERAL SERVICE EDUCATION

**D 55 26 0**

**Diploma**

**Evening**

This academic program is designed to meet specific North Carolina state needs. It is not accredited by the American Board of Funeral Service Education. Students graduating from this curriculum are not eligible to take the National Board Examination, nor any state board examination for which graduation from an ABFSE accredited program is required.

This consortium curriculum is offered to students at Forsyth Technical Community College through an agreement with **Fayetteville Technical Community College**. For additional information about the N.C. Funeral Director Certificate Curriculum, call (336) 723-0371, Ext. 7253.

### CURRICULUM DESCRIPTION

The Funeral Service Education curriculum provides students with the opportunity to become proficient in basic funeral service skills.

Graduates of the curriculum, upon passing the state exam and completing an internship in a funeral home, will be qualified for employment as funeral directors in North Carolina.

The NC Board of Mortuary Science may refuse to issue a license to an individual with a conviction of a felony or a crime involving fraud to moral turpitude.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr
<b>FALL - 1st Year</b>			
BUS 110 Introduction to Business	3	0	3
ENG 115 Oral Communication	3	0	3
FSE 112 Principles of Funeral Service	3	0	3
FSE 214 Pathology	3	0	3
PSY 150 General Psychology	3	0	3
SOC 210 Introduction to Sociology	3	0	3
	<b>18</b>	<b>0</b>	<b>18</b>

### SPRING - 1st Year

ACC 111 Financial Accounting	3	0	3
BUS 115 Business Law I	3	0	3
BUS 230 Small Business Management	3	0	3
CIS 113 Computer Basics	0	2	1
FSE 116 Funeral Law and Ethics	3	0	3
FSE 215 Funeral Home Operations	4	0	4
PSY 141 Psych of Death and Dying	3	0	3
	<b>19</b>	<b>2</b>	<b>20</b>

Courses with an FSE prefix will be taught in the evening over the Information Highway from Fayetteville Technical Community College. All courses may be taken on the Forsyth Tech campus.

**TOTAL CREDIT HOURS: 38**

# GENERAL OCCUPATIONAL TECHNOLOGY

A 55 28 0
A.A.S.
Day and Evening

## CURRICULUM DESCRIPTION

The General Occupational Technology curriculum provides individuals with an opportunity to upgrade their skills and to earn an associate degree by taking courses suited for their occupational interests and/or needs.

The curriculum content will be individualized for students according to their occupational interests and needs. A program of study for each student will be selected from associate degree level courses offered by the College.

Graduates will become more effective workers, be better qualified for advancements within their field of employment, or become qualified for a wide range of entry level employment opportunities.

## CURRICULUM COURSES

Course Title	Hours Per Week		
	Cl	Lb	Cr

### GENERAL EDUCATION .....15

#### Communications

ENG 111 Expository Writing	3	0	3
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ENG 112 Argument-Based Research	3	0	3
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**OR**

ENG 113 Literature-Based Research	3	0	3
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**OR**

ENG 114 Professional Research/Reporting	3	0	3
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Social/Behavioral Science Elective	3	0	3
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See your advisor for list of electives.

Humanities/Fine Arts Elective	3	0	3
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See your advisor for list of electives.

Mathematics/Natural Science Elective	3	0	3
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Select from 110 or higher level courses

### MAJOR HOURS .....50 (49)

#### Core

21 credit hours must be taken from a combination of core courses for curriculums offered by the college.

#### Concentration

26 additional credit hours must be taken from courses required by degree programs offered by the college.

## OTHER MAJOR HOURS

CIS 110 Introduction to Computers	2	2	3
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**OR**

CIS 111 Basic PC Literacy	(1)	(2)	(2)
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**TOTAL CREDIT HOURS: 65 (64)**

**GENERAL OCCUPATIONAL TECHNOLOGY**  
**D 55 28 0                      Diploma                      Day and Evening**

**CURRICULUM DESCRIPTION**

This curriculum provides individuals with an opportunity to upgrade their skills and to earn a diploma by taking courses suited for their occupational interests and/or needs.

The curriculum content will be individualized for students according to their occupational interests and needs. A program of study for each student will be selected from associate degree level courses offered by the College.

Graduates will become more effective workers, be better qualified for advancements within their field of employment or become qualified for a wide range of entry level employment opportunities.

**CURRICULUM COURSES**

Course Title	Hours Per Week
	Cl Lb Cr

**GENERAL EDUCATION .....6**

3 SHC must be in communications. The other 3 SHC may be in reading, writing, oral communications, fundamental mathematical skills, and basic use of computers.

**Communications**

ENG 111 Expository Writing	3	0	3
ENG 115 Oral Communication	3	0	3

**MAJOR HOURS .....30**

**Core**

18 SHC must be taken from the curriculum program subject/course core that the student is aspiring to complete.

**Concentration**

12 SHC must be taken from the curriculum program's subjects and/or courses. The majority of these hours must be unique to the concentration and are in addition to the required subject/course core.

**OTHER REQUIRED HOURS .....3**

3 SHC of electives, orientation, or study skills.

**TOTAL CREDIT HOURS: 39**

**GRAPHIC ARTS AND IMAGING TECHNOLOGY (Reproduction Technology)**  
**A 30 18 0**

**A.A.S.**

**Day**

**CURRICULUM DESCRIPTION**

The Graphic Arts and Imaging Technology curriculum is designed to provide students with knowledge and skills necessary for employment in the printing, publishing, packaging, and related industries.

Students will receive hands-on training in computer publishing, imaging technology, offset lithography, screen printing, and emerging printing technologies. Training may also include flexography, graphic design, and multimedia.

Graduates should qualify for career opportunities within the printing and publishing industries.

**CURRICULUM BY SEMESTERS**

Course Title	Hours Per Week		
	Cl	Lb	Cr

**FALL - 1st Year**

CIS 111	Basic PC Literacy	1	2	2
GRA 110	Graphic Arts Orientation	2	0	2
GRA 121	Graphic Arts I	2	4	4
GRA 130	Print Career Exploration	1	0	1
GRD 141	Graphic Design I	2	4	4
MAT 115	Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
		<b>10</b>	<b>12</b>	<b>16</b>

**SPRING - 1st Year**

ENG 111	Expository Writing	3	0	3
GRA 112	Graphic Arts Problem Solving	2	0	2
GRA 151	Computer Graphics I	1	3	2
GRA 221	Graphic Arts II	2	4	4
GRA 255	Image Manipulation I	<u>1</u>	<u>3</u>	<u>2</u>
		<b>9</b>	<b>10</b>	<b>13</b>

**SUMMER - 1st Year**

GRA 152	Computer Graphics II	1	3	2
GRA 222	Graphic Arts III	2	4	4
GRA 256	Image Manipulation II	<u>1</u>	<u>3</u>	<u>2</u>
		<b>4</b>	<b>10</b>	<b>8</b>

**FALL - 2nd Year**

ART 111	Art Appreciation	3	0	3
ENG 114	Professional Research and Reporting	3	0	3
GRA 153	Computer Graphics III	1	3	2
GRA 257	Image Manipulation III	1	3	2
PRN 155	Screen Printing I	1	3	2
PRN 221	Offset Press Operations	<u>1</u>	<u>4</u>	<u>3</u>
		<b>10</b>	<b>13</b>	<b>15</b>

**SPRING - 2nd Year**

BUS 230	Small Business Management	3	0	3
GRA 154	Computer Graphics IV	1	3	2
PRN 131	Flexography I	2	4	4
PRN 240	Print Estimating/Planning	3	0	3
PSY 150	General Psychology	<u>3</u>	<u>0</u>	<u>3</u>
		<b>12</b>	<b>7</b>	<b>15</b>

**TOTAL CREDIT HOURS: 67**



# GRAPHIC ARTS AND IMAGING TECHNOLOGY (Reproduction Technology)

D 30 18 0

Diploma

Day

## CURRICULUM DESCRIPTION

The Graphic Arts and Imaging Technology curriculum is designed to provide students with knowledge and skills necessary for employment in the printing, publishing, packaging, and related industries.

Students will receive hands-on training in computer publishing, imaging technology, offset lithography, screen printing, and emerging printing technologies. Training may also include flexography, graphic design, and multimedia.

Graduates should qualify for career opportunities within the printing and publishing industries.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

CIS 111 Basic PC Literacy	1	2	2
GRA 110 Graphic Arts Orientation	2	0	2
GRA 121 Graphic Arts I	2	4	4
GRA 130 Print Career Exploration	1	0	1
GRD 141 Graphic Design I	2	4	4
MAT 101 Applied Mathematics I	<u>2</u>	<u>2</u>	<u>3</u>
	10	12	16

### SPRING

ENG 101 Applied Communications I	3	0	3
GRA 112 Graphics Problem Solving	2	0	2
GRA 151 Computer Graphics I	1	3	2
GRA 221 Graphic Arts II	2	4	4
GRA 255 Image Manipulation I	<u>1</u>	<u>3</u>	<u>2</u>
	9	10	13

### SUMMER

GRA 152 Computer Graphics II	1	3	2
GRA 222 Graphics Arts III	2	4	4
GRA 256 Image Manipulation II	<u>1</u>	<u>3</u>	<u>2</u>
	4	10	8

TOTAL CREDIT HOURS: 37

# HEALTH CARE TECHNOLOGY

C 45 35 0

Certificate

Day

## CURRICULUM DESCRIPTION

**Individuals entering this curriculum must be listed on the Nursing Assistant I Registry and have documentation of successful completion of a Nursing Assistant I program.** This curriculum prepares multi-skilled health care personnel to perform a variety of assistive skills which cross several traditional health care disciplines.

Course work includes communication, dietary, and clerical skills as well as those required for listing as a Nursing Assistant II. Based upon local needs, instruction may also include phlebotomy and basic electrocardiography, environmental maintenance, restorative care, and basic respiratory skills.

Graduates of this program will be eligible for listing as a Nursing Assistant II in the state of North Carolina. Employment opportunity sites include hospitals, nursing homes, extended care facilities, and home health agencies.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr
<b>FALL</b>				
HCT 101 Health Care Technology I	6	2	6	9
	6	2	6	9

## SPRING

**Choose at least 1 course from the following:**

HCT 102 Basic Phlebotomy and EKG	1	2	3	3
HCT 103 Environmental Maintenance	1	2	3	3
HCT 104 Restorative Care	1	2	3	3
HCT 105 Basic Respiratory Skills	1	2	3	3

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Provide evidence of listing with the state of North Carolina as a certified nursing assistant I or nursing assistant II.
2. Submit a reference from your current or most recent supervisor which working as a CNA I or CNA II. This is to be completed on the college approved form.
3. Have at least six months of work experience as a CNA I or other training

or experience acceptable to the Health Technologies division.

4. Have a current cardiopulmonary resuscitation certification (CPR) at the Health Care Provider level.
5. Completion of program orientation requirements.
6. Completion of the **Forsyth Tech Student Medical Form.**

## Program Information:

This program has limited enrollment. Students are approved on a first qualified basis. Interested students should submit all admissions materials as early as possible.

A grade of C or better is required in both HCT 101 and HCT 102 to meet program graduation requirements.

Applicants already holding current CNA II certification will be granted credit for the first part of HCT 101 and will begin classes during the second portion of the course.

**TOTAL CREDIT HOURS: 12-18**

# HEALTH INFORMATION TECHNOLOGY

A 45 36 0

A.A.S.

Day

The Triad Regional Health Information Technology Program is a collaborative educational program offered by **Davidson County Community College, Forsyth Technical Community College, and Guilford Technical Community College.**

## CURRICULUM DESCRIPTION

The Health Information Technology curriculum prepares individuals with the knowledge and skills to process, analyze, abstract, compile, maintain, manage, and report health information.

Students will supervise departmental functions; classify, code and index diagnoses and procedures; coordinate information for cost control, quality management, statistics, marketing, and planning; monitor governmental and non-governmental standards; facilitate research; and design system controls to monitor patient information security.

Graduates of this program may be eligible to write the national certification examination to become an Accredited Record Technician (ART). Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, outpatient clinics, physicians' offices, Hospice, and mental health facilities.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week				
	Ci	Lb	Cn	Cr	
<b>FALL - 1st Year</b>					
BIO 168* Anatomy and Physiology I	3	3	0	4	
CIS 110* Intro to Computers	2	2	0	3	
ENG 111* Expository Writing	3	0	0	3	
HIT 110 Orientation to Health Care	2	0	0	2	
HIT 122 Directed Practice I	0	3	0	1	
MED121* Medical Terminology I	3	0	0	3	
	13	8	0	16	

## SPRING - 1st Year

BIO 169* Anatomy and Physiology II	3	3	0	4	
ENG 114* Prof Research & Reporting	3	0	0	3	
HIT 112 Health Law & Ethics	3	0	0	3	
MED122* Medical Terminology II	3	0	0	3	
MAT 115* Mathematical Models	2	2	0	3	
	14	5	0	16	

## SUMMER - 1st Year

ENG 115* Oral Communication	3	0	0	3	
HIT 114 Record Systems/Standards	2	3	0	3	
HIT 226 Principles of Disease	3	0	0	3	
PSY 150* General Psychology	3	0	0	3	
	11	3	0	12	

## FALL - 2nd Year

BUS 137* Principles of Management	3	0	0	3	
HIT 124 Directed Practice II	1	3	0	2	
HIT 210 Health Care Statistics	3	2	0	4	
HIT 212 Coding Classification I3	3	0	4		
HIT 220 Computers in Health Care	1	2	0	2	
	11	10	0	15	

## SPRING - 2nd Year

HIT 214 Coding/Classification II	3	3	0	4	
HIT 216 Quality Management	2	2	0	3	
HIT 222 Directed Practice III	0	6	0	2	
HIT 224 Directed Practice IV	1	6	0	3	
HIT 280 Professional Issues	3	3	0	4	
----- Humanities/Elective Fine Arts (See your advisor.)	3	0	0	3	
	12	17	0	19	

\*These courses will be taught on the Forsyth Tech campus. All other courses will be taught on the Davidson County Community College campus.

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra. Credit for chemistry is granted only with

*Continued on next page.*

a course grade of C or better.

2. No grade below C in HIT, MED, ENG, or BIO prefix courses prior to program entry.
3. Completion of program orientation requirements.
4. Overall grade point average of 2.0 on those courses completed at Forsyth Tech which are listed as program course requirements.
5. Completion of the **Forsyth Tech Student Medical Form**.

**Program Information:**

This program has limited enrollment. Those students first to meet the admissions requirements before the admission deadline will be admitted as space allows. The admissions office can provide additional information on the admission process.

A grade of F or any withdrawal in any required science course, HIT prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

The program is accredited by the Commission on the Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the American Health Information Management Association's Council on Accreditation.

**TOTAL CREDIT HOURS: 76**



# HEAVY EQUIPMENT AND TRANSPORT TECHNOLOGY (DIESEL)

D 60 24 0

Diploma

Day

## CURRICULUM DESCRIPTION

The Heavy Equipment and Transport Technology curriculum is designed to prepare individuals with the knowledge and skills needed to service, troubleshoot, and repair medium and heavy duty vehicles.

The course work includes the purpose, construction features, and principles of operation of medium and heavy duty vehicles.

Graduates of the curriculum should qualify for entry level employment opportunities in a dealership, fleet shop, or independent garage as a technician. Graduates that have met the work experience requirement should also be prepared to take the ASE certification exam.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

### FALL

CIS 111	Basic PC Literacy	1	2	2
HET 110	Engines	3	9	6
HET 112	Diesel Electrical Systems	3	6	5
HET 125	Preventive Maintenance	1	3	2
HET 230	Air Brakes	<u>1</u>	<u>2</u>	<u>2</u>
		<b>9</b>	<b>22</b>	<b>17</b>

### SPRING

ELN 112	Diesel Electronic Systems	2	6	4
ENG 101	Applied Communications I	3	0	3
HET 115	Electronic Engines	2	3	3
HET 119	Mechanical Transmissions	2	2	3
MAT 101	Applied Mathematics I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>11</b>	<b>13</b>	<b>16</b>

### SUMMER

HET 114	Power Trains	3	6	5
HET 116	Air Conditioning/ Diesel Equipment	1	2	2
HET 233	Suspension/Steering	2	4	4
HYD 112	Hydraulics/Medium/ Heavy Duty	<u>1</u>	<u>2</u>	<u>2</u>
		<b>7</b>	<b>14</b>	<b>13</b>

**TOTAL CREDIT HOURS: 46**

**HEAVY EQUIPMENT AND TRANSPORT TECHNOLOGY (DIESEL)**

**C 60 24 0**

**Certificate**

**Day and Evening**

**CURRICULUM DESCRIPTION**

The Heavy Equipment and Transport Technology curriculum is designed to prepare individuals with the knowledge and skills needed to service, troubleshoot, and repair medium and heavy duty vehicles.

The course work includes the purpose, construction features, and principles of operation of medium and heavy duty vehicles.

Graduates of the curriculum should qualify for entry level employment opportunities in a dealership, fleet shop, or independent garage as a technician. Graduates that have met the work experience requirement should also be prepared to take the ASE certification exam.

**CURRICULUM BY SEMESTERS**

Course Title	Hours Per Week		
	Cl	Lb	Cr

**FALL**

HET 110 Engines	<u>3</u>	<u>9</u>	<u>6</u>
	<b>3</b>	<b>9</b>	<b>6</b>

**SPRING**

HET 112 Diesel Electrical Systems	3	6	5
HET 125 Preventative Maintenance	<u>1</u>	<u>3</u>	<u>2</u>
	<b>4</b>	<b>9</b>	<b>7</b>

**SUMMER**

HET 116 Air Conditioning/ Diesel Equipment	1	2	2
HET 230 Air Brakes	<u>1</u>	<u>2</u>	<u>2</u>
	<b>2</b>	<b>4</b>	<b>4</b>

**TOTAL CREDIT HOURS: 17**

# HORTICULTURE TECHNOLOGY

A 15 24 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

The Horticulture Technology curriculum encompasses the study and practical application of a variety of subjects in the field of horticulture. The curriculum consists of identifying and selecting plant materials; propagating, planting, and growing plants; designing basic landscapes and planting materials at the appropriate places and in the correct manner; properly maintaining plant materials; and managing the nursery, greenhouse, and garden center. In addition, skills are developed in designing and building planters, walks, patios, fences and other landscape features. The curriculum is designed to provide students with the knowledge, skills, and attitudes that are necessary for independent, creative thinking essential to success in this field.

Various types of employers hire the graduates of this curriculum. Examples are nurseries, greenhouse operations, garden centers, landscape contractors, landscape maintenance companies, and municipal governmental agencies.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week	CI	Lb	Cr
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### FALL - 1st Year

ENG 111 Expository Writing	3	0	3	
HOR 160 Plant Materials I	2	2	3	
HOR 162 Applied Plant Science	2	2	3	
HOR 166 Soils and Fertilizers	2	2	3	
HOR 255 Interiorscapes	<u>1</u>	<u>2</u>	<u>2</u>	
	<b>10</b>	<b>8</b>	<b>14</b>	

### SPRING - 1st Year

ENG 114 Professional Research and Reporting	3	0	3	
HOR 124 Nursery Operations	2	3	3	
HOR 168 Plant Propagation	2	2	3	
HOR 235 Greenhouse Production and Mgmt.	<u>2</u>	<u>2</u>	<u>3</u>	
HOR 260 Plant Materials II	<u>2</u>	<u>2</u>	<u>3</u>	
	<b>11</b>	<b>9</b>	<b>15</b>	

## SUMMER - 1st Year

HOR 114 Landscape Construction	2	3	3
HOR 251 Insects and Diseases	2	2	3
PSY 150 Psychology	<u>3</u>	<u>0</u>	<u>3</u>
	<b>7</b>	<b>5</b>	<b>9</b>

## FALL - 2nd Year

HOR 112 Landscape Design I	2	3	3
HOR 118 Equipment Oper. and Maint.	1	3	2
HOR 170 Horticulture Computer Apps.	1	3	2
HOR 298 Seminar in Landscape Construction	2	3	3
MAT 115 Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
	<b>8</b>	<b>14</b>	<b>13</b>

## SPRING - 2nd Year

HOR 116 Landscape Management	2	2	3
HOR 142 Fruit and Vegetable Prod.	1	2	2
HOR 164 Horticulture Pest Management	2	2	3
HOR 213 Landscape Design II	2	2	3
---- ---- Humanities/ Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
	<b>10</b>	<b>8</b>	<b>14</b>

**TOTAL CREDIT HOURS: 65**

# HUMAN SERVICES TECHNOLOGY

A 45 38 0

A.A.S.

Day

Pending State Board approval, this curriculum will be offered as a Forsyth Technical Community College curriculum beginning Fall 2000.

## CURRICULUM DESCRIPTION

The Human Services Technology curriculum prepares students for entry-level positions in institutions and agencies which provide social, community, and educational services. Along with core courses, students take courses which prepare them for specialization in specific human service areas.

Students will take courses from a variety of disciplines. Emphasis in core courses is placed on development of relevant knowledge, skills, and attitudes in human services. Fieldwork experience will provide opportunities for application of knowledge and skills learned in the classroom.

Graduates should qualify for positions in mental health, child care, family services, social services, rehabilitation, correction, and educational agencies. Graduates choosing to continue their education may select from a variety of transfer programs at senior public and private institutions.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr	
<b>FALL - 1st Year</b>					
CIS 110 Intro to Computers	3	0	0	0	3
<b>OR</b>					
CIS 111 Basic PC Literacy	(1)	(2)	(0)	(0)	(2)
ENG 111 Expository Writing	3	0	0	0	3
HSE 110 Intro to Human Services	2	2	0	0	3
HSE 112 Group Process I	1	2	0	0	2
PSY 150 General Psychology	3	0	0	0	3
SOC 210 Intro to Sociology	3	0	0	0	3
	15	4	0	0	17
	(13)	(6)	(0)	(0)	(16)

## SPRING - 1st Year

ENG 114 Professional Research & Reporting	3	0	0	0	3
HSE 123 Interviewing Techniques	2	2	0	0	3
HSE 125 Counseling	2	2	0	0	3
HSE 210 Human Services Issues	2	0	0	0	2
MAT 115 Mathematical Models	2	2	0	0	3
<b>OR</b>					
MAT 140 Survey of Mathematics	(3)	(0)	(0)	(0)	(3)
SOC 213 Sociology of the Family	3	0	0	0	3
	14	6	0	0	17
	(15)	(4)	(0)	(0)	(17)

## FALL - 2nd Year

COE 111 Co-op Work Exp. I	0	0	10	0	1
COE 115 Work Experience Seminar I	1	0	0	0	1
HSE 225 Crisis Intervention	3	0	0	0	3
HSE 250 Financial Services	2	0	0	0	2
PSY 281 Abnormal Psychology	3	0	0	0	3
-----* Humanities/Fine Arts Elective (See your advisor.)	3	0	0	0	3
-----** Major Elective	3	0	0	0	3
	15	0	10	0	16

## SPRING - 2nd Year

COE 121 Co-op Work Exp. II	0	0	10	0	1
COE 125 Work Experience Seminar II	1	0	0	0	1
HSE 245 Stress Management	2	2	0	0	3
HSE 251 Activities Therapy	2	2	0	0	3
SOC 225 Working with Social Diversity	3	0	0	0	3
-----** Major Elective	3	0	0	0	3
	11	4	10	0	14

## \*Humanities/Fine Arts Elective

ART 111

COM 110

MUS 110

## \*\*Major Electives:

HSE 127, 240, 255

PSY 241

**TOTAL CREDIT HOURS: 64 or (63)**



# INFORMATION SYSTEMS

**A 25 26 0**

**A.A.S.**

**Day**

## CURRICULUM DESCRIPTION

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

### FALL - 1st Year

CIS 111 Basic PC Literacy	1	2	2
CIS 115 Intro. to Prog. and Logic	2	2	3
ENG 111 Expository Writing	3	0	3
MAT 115 Mathematical Models	2	2	3
OST 131 Keyboarding	1	2	2
	<b>9</b>	<b>8</b>	<b>13</b>

### SPRING - 1st Year

ACC 120 Prin. of Accounting I	3	2	4
CIS 130 Survey of Operating Systems	2	3	3
CIS 172 Intro to the Internet	2	3	3
ENG 114 Professional Research and Reporting	3	0	3
OST 136 Word Processing	1	2	2
	<b>11</b>	<b>10</b>	<b>15</b>

## SUMMER - 1st Year

CIS 152 Database Concepts and Apps.	2	2	3
CIS 215 Hardware Install./Maintenance	2	3	3
NET 110 Data Comm/Networking	2	2	3
	<b>6</b>	<b>7</b>	<b>9</b>

## FALL - 2nd Year

CIS 120 Spreadsheet I	2	2	3
CIS 162 Multimedia Presentation Software	2	2	3
CIS 246 Operating System - UNIX	2	3	3
--- --- ACC/CIS/CSC/ITN/NET/OST Elective***	*	*	3**
PSY 150 General Psychology	3	0	3
	<b>9+</b>	<b>8+</b>	<b>15</b>

## SPRING - 2nd Year

CSC 139 Visual BASIC Programming	2	3	3
CIS 165 Desktop Publishing I	2	2	3
--- --- ACC/CIS/CSC/ITN/NET/OST Elective***	*	*	3**
--- --- Humanities/ Fine Arts Elective (see your advisor)	3	0	3
	<b>7+</b>	<b>5+</b>	<b>12</b>

\*Hours will vary

\*\*The ACC/CIS/CSC/ITN/NET/OST electives must total a minimum of 9 hours. Course credit may vary from 1 to 4 semester hours credit.

\*\*\*ACC/CIS/CSC/ITN/NET/OST Electives:  
ACC: 150

CIS: 112, 113 118, 121, 122, 124, 126, 128, 144, 145, 146, 147, 148, 149, 153, 154, 155, 157, 160, 161, 163, 164, 166, 168, 169, 170, 172, 173, 174, 175, 182, 184, 211, 216, 217, 218, 219, 226, 227, 228, 244, 246, 247, 256, 260, 266, 267, 268, 276, 279, 286, 288, 289, 296, 220

CSC: 120, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 145, 150, 152, 230, 237, 239, 240, 241, 242, 245,

*Continued on next page.*

246, 247, 248, 250, 260

**ITN:** 110, 130, 140, 150, 160, 170, 180,  
230, 240, 250, 260, 280

**NET:** 115, 120, 125, 126, 225, 226, 260

**OST:** 236

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I required.
2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

**Program Information:**

Opportunities are available for students to become Cisco, Microsoft and Novell certified.

**TOTAL CREDIT HOURS: 64**

# INFORMATION SYSTEMS

**A 25 26 0**

**A.A.S.**

**Evening**

## CURRICULUM DESCRIPTION

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

### FALL - 1st Year

CIS 111 Basic PC Literacy	1	2	2
OST 131 Keyboarding	<u>1</u>	<u>2</u>	<u>2</u>
	3	4	4

### SPRING - 1st Year

CIS 130 Survey of Operating Systems	2	3	3
CIS 115 Intro. to Programming & Logic	<u>2</u>	<u>2</u>	<u>3</u>
	4	5	6

### SUMMER - 1st Year

CIS 152 Database Concepts & Apps.	2	2	3
NET 110 Data Comm./Networking	<u>2</u>	<u>2</u>	<u>3</u>
	4	4	6

### FALL - 2nd Year

ENG 111 Expository Writing	3	0	3
OST 136 Word Processing	<u>1</u>	<u>2</u>	<u>2</u>
	4	2	5

### SPRING - 2nd Year

CIS 120 Spreadsheet I	2	2	3
CIS 165 Desktop Publishing I	<u>2</u>	<u>2</u>	<u>3</u>
	4	4	6

### SUMMER - 2nd Year

ACC 120 Prin. of Accounting I	3	2	4
CIS 215 Hardware Install./Maintenance	<u>2</u>	<u>3</u>	<u>3</u>
	5	5	7

### FALL - 3rd Year

CIS 162 Multimedia Presentation Software	2	2	3
MAT 115 Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
	4	4	6

### SPRING - 3rd Year

CIS 246 Operating System - UNIX	2	3	3
ENG 114 Professional Research and Reporting	<u>3</u>	<u>0</u>	<u>3</u>
	5	3	6

### SUMMER - 3rd Year

CIS 172 Intro to the Internet	2	3	3
PSY 150 General Psychology	<u>3</u>	<u>0</u>	<u>3</u>
	5	3	6

### FALL - 4th Year

---- ---- Humanities/Fine Arts Selection (See your advisor.)	3	0	3
---- ---- ACC/CIS/CSC/ITN/NET/OST Elective***	<u>*</u>	<u>*</u>	<u>3**</u>
	3+	0+	6

### SPRING - 4th Year

CSC 139 Visual BASIC Programming	2	3	3
---- ---- ACC/CIS/CSC/ITN/NET/OST Elective***	<u>*</u>	<u>*</u>	<u>3**</u>
	3+	0+	6

\*Hours will vary

\*\*The ACC/CIS/CSC/ITN/NET/OST electives must total a minimum of 9 hours. Course credit may vary from 1 to 4 semester hours credit.

*Continued on next page.*

**\*\*\*ACC/CIS/CSC/ITN/NET/OST Electives:**

**ACC:** 150

**CIS:** 112, 113 118, 121, 122, 124, 126, 128, 144, 145, 146, 147, 148, 149, 153, 154, 155, 157, 160, 161, 163, 164, 166, 168, 169, 170, 172, 173, 174, 175, 182, 184, 211, 216, 217, 218, 219, 226, 227, 228, 244, 246, 247, 256, 260, 266, 267, 268, 276, 279, 286, 288, 289, 296, 220

**CSC:** 120, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 145, 150, 152, 230, 237, 239, 240, 241, 242, 245, 246, 247, 248, 250, 260

**ITN:** 110, 130, 140, 150, 160, 170, 180, 230, 240, 250, 260, 280

**NET:** 115, 120, 125, 126, 225, 226, 260

**OST:** 236

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I required.
2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

**Program Information:**

Opportunities are available for students to become Cisco, Microsoft and Novell certified.

**TOTAL CREDIT HOURS: 64**



# INFORMATION SYSTEMS

**D 25 26 0**

**Diploma**

**Day and Evening**

## CURRICULUM DESCRIPTION

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	C1	Lb	Cr

### FALL - 1st Year

CIS 111 Basic PC Literacy	1	2	2
CIS 115 Intro. to Prog. and Logic	<u>2</u>	<u>2</u>	<u>3</u>
	<b>3</b>	<b>4</b>	<b>5</b>

### SPRING - 1st Year

CIS 120 Spreadsheet I	2	2	3
CIS 130 Survey of Operating Systems	<u>2</u>	<u>3</u>	<u>3</u>
	<b>4</b>	<b>5</b>	<b>6</b>

### SUMMER - 1st Year

CIS 152 Database Concepts and Apps.	2	2	3
OST 136 Word Processing	<u>1</u>	<u>2</u>	<u>2</u>
	<b>3</b>	<b>4</b>	<b>6</b>

### FALL - 2nd Year

ENG 111 Expository Writing	3	0	3
MAT 115 Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
	<b>5</b>	<b>2</b>	<b>6</b>

## SPRING - 2nd Year

CIS 162 MM Presentation			
Software	2	2	3
CIS ---- Elective*	3	0	3
NET 110 Data Comm./Networking	<u>2</u>	<u>2</u>	<u>3</u>
	<b>7</b>	<b>4</b>	<b>9</b>

## SUMMER - 2nd Year

CIS ---- Elective*	<u>4</u>	<u>0</u>	<u>4</u>
	<b>4</b>	<b>0</b>	<b>4</b>

**\*CIS Electives:** 112, 113 118, 121, 122, 124, 126, 128, 144, 145, 146, 147, 148, 149, 153, 154, 155, 157, 160, 161, 163, 164, 166, 168, 169, 170, 172, 173, 174, 175, 182, 184, 211, 216, 217, 218, 219, 226, 227, 228, 244, 246, 247, 256, 260, 266, 267, 268, 276, 279, 286, 288, 289, 296, 220

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I required.
2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

## Program Information:

Opportunities are available for students to become Cisco, Microsoft or Novell certified.

**TOTAL CREDIT HOURS: 36**

# INFORMATION SYSTEMS

C 25 26 0

Certificate

Day and Evening

## CURRICULUM DESCRIPTION

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

CIS 111 Basic PC Literacy	1	2	2
CIS 115 Introduction to Prog. and Logic	<u>2</u>	<u>2</u>	<u>3</u>
	<b>3</b>	<b>4</b>	<b>5</b>

### SPRING

CIS 130 Survey of Operating Systems	2	3	3
OST 136 Word Processing	<u>1</u>	<u>2</u>	<u>2</u>
	<b>3</b>	<b>5</b>	<b>5</b>

### SUMMER

CIS 120 Spreadsheet I	2	2	3
CIS 152 Database Concepts and Apps	<u>2</u>	<u>2</u>	<u>3</u>
	<b>4</b>	<b>4</b>	<b>6</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

Keyboarding skills recommended.

**TOTAL CREDIT HOURS: 16**

# INFORMATION SYSTEMS

## Desktop Publishing

**D 25 26 0 D**

**Diploma**

**Day and Evening**

### CURRICULUM DESCRIPTION

The Desktop Publishing diploma program is designed to provide students with the knowledge and skills necessary for producing single- and multi-page publications.

Students will learn to integrate a variety of software and to utilize hardware peripherals to incorporate text and images. The curriculum emphasizes design and layout as well as composing, formatting, editing, and proofreading.

Graduates should qualify for self-employment opportunities or employment with business, industry, or government organizations that use computers for desktop publishing.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

#### FALL - 1st Year

CIS 111	Basic PC Literacy	1	2	2
CIS 115	Intro. to Prog. and Logic	2	2	3
ENG 111	Expository Writing	3	0	3
MAT 115	Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
		<b>8</b>	<b>6</b>	<b>11</b>

#### SPRING - 1st Year

CIS 116	Introduction PC App. Development	2	3	3
CIS 130	Survey of Operating Systems	2	3	3
CIS 164	DTP Layout and Design	2	2	3
CIS 165	Desktop Publishing I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>8</b>	<b>10</b>	<b>12</b>

#### FALL - 2nd Year

-----	CIS Elective	2	2	3
CIS 162	MM Presentation Software	2	2	3
CIS 166	Desktop Publishing II	2	2	3
CIS 172	Introduction to the Internet	<u>2</u>	<u>3</u>	<u>3</u>
		<b>8</b>	<b>9</b>	<b>12</b>

#### SPRING - 2nd Year

CIS 168	Desktop Presentations	1	2	2
CIS 260	Business Graphics App.	2	2	3
NET 110	Data Communications/Networking	<u>2</u>	<u>2</u>	<u>3</u>
		<b>5</b>	<b>6</b>	<b>8</b>

### CIS Electives:

112, 113 118, 121, 122, 124, 126, 128, 144, 145, 146, 147, 148, 149, 153, 154, 155, 157, 160, 161, 163, 164, 166, 168, 169, 170, 172, 173, 174, 175, 182, 184, 211, 216, 217, 218, 219, 226, 227, 228, 244, 246, 247, 256, 260, 266, 267, 268, 276, 279, 286, 288, 289, 296, 220

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I required.
2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

**TOTAL CREDIT HOURS: 43**

# INFORMATION SYSTEMS

## Helpdesk Certificate

C 25 26 0 H

Day and Evening

### CURRICULUM DESCRIPTION

The Helpdesk certificate provides the student with basic skills necessary to support users of computing technologies.

Course work will help students develop an ability to communicate technical issues in a manner that customers can comprehend. Students will also be introduced to a variety of diagnostic and instructional tools used to evaluate the performance of computer systems. Additionally, students will be trained in the methodologies for analysis, design, and development of a helpdesk system by way of prototyping, CASE tools and System Development Life Cycle phases.

Graduates should qualify for employment in entry-level positions with helpdesk support firms, businesses or with educational systems that rely on computer systems to manage information.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cn

#### FALL

CIS 111	Basic PC Literacy	1	2	2
CIS 115	Intro to Prog and Logic	<u>2</u>	<u>2</u>	<u>3</u>
		3	4	5

#### SPRING

CIS 170	Tech Support Functions I	2	2	3
NET 110	Data Comm/Networking	<u>2</u>	<u>2</u>	<u>3</u>
		4	4	6

#### SUMMER

CIS 215	Hardware Install/ Maintenance	3	2	4
CIS 276	Helpdesk Analysis and Design	<u>3</u>	<u>0</u>	<u>3</u>
		6	2	7

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

Keyboarding skills recommended.

**TOTAL CREDIT HOURS: 18**



# INFORMATION SYSTEMS

## Networking Administration and Support Concentration

A 25 26 D                      A.A.S.                      Day

### CURRICULUM DESCRIPTION

Network Administration and Support is a concentration under the curriculum title of Information Systems. This curriculum prepares students to install and support networks and develops strong analytical skills and extensive computer knowledge.

Course work includes extensive hands-on experience with networks. Classes cover media types, topologies, and protocols with installation and support of hardware and software, troubleshooting network and computer problems, and administrative responsibilities. Elective choices provide opportunity for specialization individualization.

Graduates should qualify for positions such as: LAN/PC, Administrator, Microcomputer Support Specialist, Network Control Operator, Communications Technician/Analyst, Network/Computer Consultant, and Information Systems Specialist. Graduates are also prepared to sit for certification exams which can result in industry-recognized credentials.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

#### FALL - 1st Year

CIS 111 Basic PC Literacy	1	2	2
CIS 115 Intro. to Programming and Logic	2	2	3
CIS 130 Survey of Operating Systems	2	2	3
OST 131 Keyboarding	1	2	2
NET 110 Data Comm/Networking	2	2	3
	<b>8</b>	<b>10</b>	<b>13</b>

#### SPRING - 1st Year

CIS 174 Network System Manager I	2	2	3
CIS 282 Network Tech.	3	0	3
ENG 111 Expository Writing	3	0	3
MAT 115 Math Models	2	2	3
	<b>10</b>	<b>4</b>	<b>12</b>

### SUMMER - 1st Year

CIS 215 Hardware Install./Maintenance	3	2	3
CIS 274 Network System Manager II	2	2	3
NET 125 Intro Network Routing and Switching	1	4	3
	<b>6</b>	<b>8</b>	<b>9</b>

### FALL - 2nd Year

BUS 151 People Skills	3	0	3
CIS 175 Network Mgmt. I	2	2	3
CIS 287 Network Support	2	2	3
ENG 114 Professional Research and Report	3	0	3
PSY 150 General Psychology	3	0	3
	<b>13</b>	<b>4</b>	<b>15</b>

### SPRING - 2nd Year

CIS 152 Database Concepts and Applications	2	2	3
CIS 275 Network Mgmt. II	2	2	3
NET 126 Router Theory	1	4	3
---- CIS/CSC/ITN/NET Elective***	*	*	3
---- Humanities/Fine Arts Selection (See your advisor.)	3	0	3
	<b>8+</b>	<b>8+</b>	<b>15</b>

\*Hours will vary

#### \* \*\*CIS/CSC/ITN/NET Electives:

**CIS:** 112, 118, 121, 122, 124, 126, 128, 144, 145, 146, 147, 148, 149, 153, 154, 155, 157, 160, 161, 162, 163, 164, 165, 170, 172, 182, 211, 216, 217, 218, 220, 226, 228, 244, 245, 246, 247, 256, 260, 276, 277, 286

**CSC:** 129, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 145, 150, 152

**ITN:** 110, 130, 140, 150, 160, 170, 180, 230, 240, 250, 260, 280

**NET:** 115, 225, 226

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I required.

*Continued on next page.*

2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

**Program Information:**

Course work prepares students for Cisco, Microsoft, and Novell certification exams.

**TOTAL CREDIT HOURS: 64**

# INFORMATION SYSTEMS

## Networking Administration and Support Concentration

A 25 26 D
A.A.S.
Evening

### CURRICULUM DESCRIPTION

Network Administration and Support is a concentration under the curriculum title of Information Systems. This curriculum prepares students to install and support networks and develops strong analytical skills and extensive computer knowledge.

Course work includes extensive hands-on experience with networks. Classes cover media types, topologies, and protocols with installation and support of hardware and software, troubleshooting network and computer problems, and administrative responsibilities. Elective choices provide opportunity for specialization individualization.

Graduates should qualify for positions such as: LAN/PC, Administrator, Microcomputer Support Specialist, Network Control Operator, Communications Technician/Analyst, Network/Computer Consultant, and Information Systems Specialist. Graduates are also prepared to sit for certification exams which can result in industry-recognized credentials.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

#### FALL - 1st Year

CIS 111 Basic PC Literacy	1	2	2
CIS 130 Survey of Operating Systems	<u>2</u>	<u>2</u>	<u>3</u>
	<b>3</b>	<b>4</b>	<b>5</b>

#### SPRING - 1st Year

OST 131 Keyboarding	1	2	2
NET 110 Data Comm/Networking	<u>2</u>	<u>2</u>	<u>3</u>
	<b>3</b>	<b>4</b>	<b>5</b>

#### SUMMER - 1st Year

CIS 152 Data Concepts and Applications	2	2	3
--- --- CIS/CSC/ITN/NET Elective***	<u>*</u>	<u>*</u>	<u>3</u>
	<b>2+</b>	<b>2+</b>	<b>6</b>

#### FALL - 2nd Year

ENG 111 Expository Writing	3	0	3
PSY 150 General Psychology	<u>3</u>	<u>0</u>	<u>3</u>
	<b>6</b>	<b>0</b>	<b>6</b>

### SPRING - 2nd Year

CIS 174 Network System Manager I	2	2	3
MAT 115 Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
	<b>4</b>	<b>4</b>	<b>6</b>

### SUMMER - 2nd Year

CIS 215 Hardware Install/Maintenance	3	2	3
CIS 287 Network System Manager II	<u>2</u>	<u>2</u>	<u>3</u>
	<b>5</b>	<b>4</b>	<b>6</b>

### FALL - 3rd Year

CIS 287 Network Support	2	2	3
ENG 114 Professional Research and Reporting	<u>3</u>	<u>0</u>	<u>3</u>
	<b>5</b>	<b>2</b>	<b>6</b>

### SPRING - 3rd Year

BUS 151 People Skills	3	0	3
CIS 282 Network Technology	<u>3</u>	<u>0</u>	<u>3</u>
	<b>6</b>	<b>0</b>	<b>6</b>

### SUMMER - 3rd Year

CIS 115 Intro to Prog and Logic	2	2	3
NET 125 Intro Network Routing & Switching	<u>1</u>	<u>4</u>	<u>3</u>
	<b>3</b>	<b>6</b>	<b>6</b>

### FALL - 4th Year

CIS 175 Network Mgmt. I	2	2	3
----- Humanities/Fine Arts Elective (see page 650)	<u>3</u>	<u>0</u>	<u>3</u>
	<b>5</b>	<b>2</b>	<b>6</b>

### SPRING - 4th Year

CIS 275 Network Mgmt. II	2	2	3
NET 126 Router Theory/Router Technologies	<u>1</u>	<u>4</u>	<u>3</u>
	<b>3</b>	<b>6</b>	<b>6</b>

\*Hours will vary

\*\*\*CIS/CSC/ITN/NET Electives:

CIS: 112, 118, 121, 122, 124, 126, 128, 144, 145, 146, 147, 148, 149, 153, 154, 155, 157, 160, 161, 162, 163, 164, 165, 170, 172, 182, 211, 216, 217, 218, 220, 226, 228, 244, 245, 246, 247, 256, 260, 276, 277, 286

*Continued on next page.*

**CSC:** 129, 131, 132, 133, 134, 135, 136,  
137, 138, 139, 140, 141, 142, 145, 150, 152

**ITN:** 110, 130, 140, 150, 160, 170, 180,  
230, 240, 250, 260, 280

**NET:** 115, 225, 226

**Additional admission requirements** to those  
listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I required.
2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

**Program Information:**

Course work prepares students for Cisco,  
Microsoft, and Novell certification exams.

**TOTAL CREDIT HOURS: 64**



## INFORMATION SYSTEMS

### Networking Administration and Support Concentration-Cisco Router Technology C 25 26 D C                      Certificate                      Day and Evening

#### CURRICULUM DESCRIPTION

This certificate focuses on network connectivity using routers and switches. Emphasis is placed on IP addressing and subnetting, the OSI model layers and layer functions, and router configuration. Topics covered will include various protocol suites and the functions each performs in the transmission of data, LAN segmentation, VLAN design, and access list management.

Upon completion, students should be able to configure IP and subnet addresses, perform router startup and configuration, understand basic wiring and wiring closets, and network protocol administration. Students should be prepared for entry level positions in network departments and communications companies. Completion of this certificate will provide the classes needed to take the Cisco CCNA certification exam.

#### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

##### FALL

NET 110 Data Comm/Networking	2	2	3
NET 125 Intro Network			
Routing & Switching	1	4	3
NET 126 Router Theory/			
Router Technologies	<u>1</u>	<u>4</u>	<u>3</u>
	<b>4</b>	<b>10</b>	<b>9</b>

##### SPRING

BUS 151 People Skills	3	0	3
NET 225 Routing and Switching	1	4	3
NET 226 Routing and Switching II	<u>1</u>	<u>4</u>	<u>3</u>
	<b>5</b>	<b>8</b>	<b>9</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I required.
2. Keyboarding skills recommended.

**TOTAL CREDIT HOURS: 18**

## INFORMATION SYSTEMS

### Networking Administration and Support Concentration-LAN Technology

**D 25 26 D L**

**Diploma**

**Day and Evening**

#### CURRICULUM DESCRIPTION

Network Administration and Support is a concentration under the curriculum title of Information Systems. This curriculum prepares students to install and support networks and develops strong analytical skills and extensive computer knowledge.

Course work includes extensive hands-on experience with networks. Classes cover media types, topologies, and protocols with installation and support of hardware and software, troubleshooting network and computer problems, and administrative responsibilities. Elective choices provide opportunity for specialization individualization.

Graduates should qualify for positions such as: LAN/PC, Administrator, Microcomputer Support Specialist, Network Control Operator, Communications Technician/Analyst, Network/Computer Consultant, and Information Systems Specialist. Graduates are also prepared to sit for certification exams which can result in industry-recognized credentials.

#### FALL - 2nd Year

CIS 215	Hardware Install/ Maintenance	2	3	4
CIS 287	Network Support	2	2	3
		4	5	7

#### SPRING - 2nd Year

BUS 151	People Skills	3	0	3
ENG 111	Expository Writing	3	0	3
		6	0	6

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I required.
2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

#### Program Information:

Course work prepares students for Cisco and Microsoft certification exams.

**TOTAL CREDIT HOURS: 36**

#### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

##### FALL - 1st Year

CIS 111	Basic PC Literacy	1	2	2
CIS 130	Survey of Operating Systems	2	2	3
NET 110	Data Comm/Networking	2	2	3
		5	6	8

##### SPRING - 1st Year

CIS 174	Network System Manager I	2	2	3
CIS 282	Network Tech.	3	0	3
MAT 115	Math. Models	2	2	3
		7	4	9

##### SUMMER - 1st Year

CIS 274	Network System Manager II	2	2	3
NET 125	Intro Network Routing & Switching	1	4	3
		3	6	6

## INFORMATION SYSTEMS

### Networking Administration and Support Concentration-WAN Technology

D 25 26 D

Diploma

Day and Evening

#### CURRICULUM DESCRIPTION

Network Administration and Support is a concentration under the curriculum title of Information Systems. This curriculum prepares students to install and support networks and develops strong analytical skills and extensive computer knowledge.

Course work includes extensive hands-on experience with networks. Classes cover media types, topologies, and protocols with installation and support of hardware and software, troubleshooting network and computer problems, and administrative responsibilities. Elective choices provide opportunity for specialization individualization.

Graduates should qualify for positions such as: LAN/PC, Administrator, Microcomputer Support Specialist, Network Control Operator, Communications Technician/Analyst, Network/Computer Consultant, and Information Systems Specialist. Graduates are also prepared to sit for certification exams which can result in industry-recognized credentials.

#### FALL - 2nd Year

CIS 175	Network Mgmt. I	2	2	3
CIS 287	Network Support	<u>2</u>	<u>2</u>	<u>3</u>
		<b>4</b>	<b>4</b>	<b>6</b>

#### SPRING - 2nd Year

BUS 151	People Skills	3	0	3
CIS 275	Network Mgmt. II	<u>2</u>	<u>2</u>	<u>3</u>
		<b>5</b>	<b>2</b>	<b>6</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school Algebra I required.
2. High school accounting recommended.
3. High school geometry recommended.
4. High school keyboarding recommended.

#### Program Information:

Course work prepares students for Cisco and Novell certification exams.

**TOTAL CREDIT HOURS: 36**

#### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

##### FALL - 1st Year

CIS 111	Basic PC Literacy	1	2	2
CIS 130	Survey of Operating Systems	2	2	3
NET 110	Data Comm/Networking	<u>2</u>	<u>2</u>	<u>3</u>
		<b>5</b>	<b>6</b>	<b>8</b>

##### SPRING - 1st Year

CIS 282	Network Tech.	3	0	3
ENG 111	Expository Writing	3	0	3
MAT 115	Math. Models	<u>2</u>	<u>2</u>	<u>3</u>
		<b>8</b>	<b>2</b>	<b>9</b>

##### SUMMER - 1st Year

CIS 215	Hardware Install/Maintenance	2	3	4
NET 125	Intro Network Routing & Switching	<u>1</u>	<u>4</u>	<u>3</u>
		<b>3</b>	<b>7</b>	<b>7</b>

# INTERNET TECHNOLOGIES

A 25 29 0

A.A.S.

Day and Evening

## CURRICULUM DESCRIPTION

The Internet Technologies curriculum is designed to prepare graduates for employment with organizations that use computers to disseminate information via the Internet internally, externally, and/or globally. This curriculum will prepare students to create and implement these services.

Course work includes computer and Internet terminology and operations, logic, operating systems' database and data communications/networking, and related topics. Studies will provide experience for students to implement, support, and customize industry standard Internet technologies.

Graduates should qualify for career opportunities as webmasters, Internet and intranet administrators, Internet applications specialists, Internet programmers and Internet technicians. Government institutions, industries, and other organizations employ individuals who possess the skills taught in this curriculum.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week	CI	Lb	Cr
--------------	----------------	----	----	----

### FALL - 1st Year

CIS 111 Basic PC Literacy	1	2	2
CIS 115 Intro to Prog and Logic	2	2	3
CIS 130 Survey of Operating Systems	2	2	3
NET 110 Data Comm/Networking	2	2	3
OST 131 Keyboarding	<u>1</u>	<u>2</u>	<u>2</u>
	<b>8</b>	<b>10</b>	<b>13</b>

### SPRING - 1st Year

CIS 172 Intro to the Internet	2	3	5
ENG 111 Expository Writing	3	0	3
ITN 150 Internet Protocols	2	2	3
MAT 115 Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
	<b>9</b>	<b>7</b>	<b>14</b>

### SUMMER - 1st Year

CSC 163 Prog Interfaces Internet	2	2	3
ITN 140 Web Development Tools	2	2	3
-----CIS/CSC/ITN/NET*			
Elective*	<u>2</u>	<u>2</u>	<u>3</u>
	<b>6</b>	<b>6</b>	<b>9</b>

## FALL - 2nd Year

ENG 114 Professional Research and Report	3	0	3
ITN 110 Intro to Web Graphics	2	2	3
ITN 170 Intro to Internet Databases	2	2	3
-----CIS/CSC/ITN/NET*			
Elective*	2	2	3
PSY 150 General Psychology	<u>3</u>	<u>0</u>	<u>3</u>
	<b>12</b>	<b>6</b>	<b>15</b>

## SPRING - 2nd Year

ITN 130 Web Site Management	2	2	3
ITN 230 Intranets	2	2	3
-----CIS/CSC/ITN/NET			
Elective*	2	2	3
-----Humanities/Fine Arts			
Elective (See your advisor.)	3	0	3
-----Social/Behavioral Science			
Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
	<b>12</b>	<b>6</b>	<b>15</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school algebra required.
2. High school geometry recommended.
3. High school keyboarding recommended.

## \*CIS/CSC/ITN/NET Electives:

**CIS:** 110, 112, 113, 118, 120, 121, 122, 124, 126, 128, 144, 145, 146, 147, 148, 149, 154, 160L, 161, 162, 164, 165, 169, 173, 215, 216, 217, 218, 226, 228, 247, 260, 296

**CSC:** 120, 129, 131, 132, 133, 136, 137, 138, 140, 141, 142, 145, 148, 150, 152 160, 190, 230, 290

**ITN:** 120, 160, 180, 210, 220, 230, 235, 240, 250, 260, 270, 280

**NET:** 125, 126, 225, 226, 260

**TOTAL CREDIT HOURS: 66**



# INTERNET TECHNOLOGIES

C 25 29 0

Certificate

Day and Evening

## CURRICULUM DESCRIPTION

The Internet Technologies certificate provides students with basic knowledge and skills to support Internet and Intranet Networks.

Course work will help students develop the skills necessary to provide support, development and maintenance of Internet and Intranet systems. Students will also develop interface programming and research skills for these systems.

Graduates should qualify for employment in entry-level positions within business, industry, educational systems, and governmental agencies which utilize Internet and Intranet technologies.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn

### FALL

CIS 111	Basic PC Literacy	1	2	2
CIS 115	Intro to Prog and Logic	2	2	3
NET 110	Data Comm/Networking	2	2	3
		5	6	8

### SPRING

CIS 130	Survey of Operating Systems	2	3	3
CIS 163	Prog. Interfaces Internet	2	2	3
CIS 172	Introduction to the Internet	2	3	3
		6	8	9

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

Keyboarding skills recommended.

**TOTAL CREDIT HOURS: 17**

# LICENSED PRACTICAL NURSE REFRESHER

C 45 39 0

Certificate

Day

## CURRICULUM DESCRIPTION

This curriculum provides a refresher course for those persons previously licensed as a Practical Nurse, who are not eligible for reentry into nursing practice because their license has lapsed for five or more years. Course work includes common medical surgical conditions and nursing approaches to their management, including mental health principles and safe clinical nursing practice. Graduates will be eligible to apply for reinstatement of licensure by the North Carolina Board on Nursing. Employment opportunities include hospitals, long term care facilities, clinics, doctors' offices, industry, and community health agencies.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
	Ci	Lb	Cn	Cr
NUR 107 LPN Refresher	9	0	9	12
	9	0	9	12

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Proof of lapsed licensure or current licensure as a practical nurse with the North Carolina Board of Nursing.
2. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
3. Completion of program orientation requirements.
4. Passing score on program administered placement test.
5. Completion of the **Forsyth Tech Medical Form**.

### Program Information:

This program has limited enrollment and is not offered every semester.

A student not making a passing score on the program administered placement test may meet admissions requirements by enrollment in NUR 101 and complete the course with a grade of C or better.

A grade of C or better in NUR 107 is required for completion.

**TOTAL CREDIT HOURS: 12**

# MACHINING TECHNOLOGY

A 50 30 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies and in a wide range of specialty machining job shops.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week	CI	Lb	Cr
--------------	----------------	----	----	----

### FALL - 1st Year

BPR 111 Blueprint Reading	1	2	2	
CIS 111 Basic PC Literacy	1	2	2	
ENG 115 Oral Communication	3	0	3	
MAC 111 Machining Technology I	2	12	6	
MAC 151 Machining Calculations	1	2	2	
	8	18	15	

### SPRING - 1st Year

BPR 121 Blueprint Reading:				
Mechanical	1	2	2	
MAC 112 Machining Technology II	2	12	6	
MAC 124 CNC Milling	1	3	2	
MAT 120 Geometry and				
Trigonometry	2	2	3	
MEC 172 Intro to Metallurgy	2	2	3	
	8	21	16	

### SUMMER - 1st Year

ISC 113 Industrial Specifications	1	0	1	
MAC 113 Machining				
Technology III	2	12	6	
MAC 122 CNC Turning	1	3	2	
	4	15	9	

### FALL - 2nd Year

DFT 121 Intro to GD&T	1	2	2
ENG 111 Expository Writing	3	0	3
HYD 110 Hydraulics/Pneumatics	2	3	3
MAC 214 Machining Technology IV	2	12	6
MAC 247 Production Tooling	2	0	2
	10	17	16

### SPRING - 2nd Year

ISC 111 Quality Control	2	0	2
MAC 241 Jigs & Fixtures I	2	6	4
MEC 110 Intro to CAD/CAM	1	2	2
WLD 112 Basic Welding Processes	1	3	2
---- Social/Behavioral Science			
Elective (See your			
advisor.)	3	0	3
---- Humanities/ Fine Arts			
Elective (See your			
advisor.)	3	0	3
	12	11	16

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. One unit of algebra recommended.
2. One unit of geometry recommended.

**TOTAL CREDIT HOURS: 72**

# MACHINING TECHNOLOGY

D 50 30 0

Diploma

Day

## CURRICULUM DESCRIPTION

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies and in a wide range of specialty machining job shops.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	CL	Lb	Cr

### FALL

BPR 111 Blueprint Reading	1	2	2
CIS 111 Basic PC Literacy	1	2	2
ENG 115 Oral Communication	3	0	3
MAC 111 Machining Technology I	2	12	6
MAC 151 Machining Calculations	<u>1</u>	<u>2</u>	<u>2</u>
	<b>8</b>	<b>18</b>	<b>15</b>

### SPRING

BPR 121 Blueprint Reading: Mechanical	1	2	2
MAC 112 Machining Technology II	2	12	6
MAC 124 CNC Milling	1	3	2
MAT 120 Geometry and Trigonometry	2	2	3
MEC 172 Intro to Metallurgy	<u>2</u>	<u>2</u>	<u>3</u>
	<b>8</b>	<b>21</b>	<b>16</b>

### SUMMER

ISC 113 Industrial Specifications	1	0	1
MAC 113 Machining Technology III	2	12	6
MAC 122 CNC Turning	<u>1</u>	<u>3</u>	<u>2</u>
	<b>4</b>	<b>15</b>	<b>9</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. One unit of algebra recommended.
2. One unit of geometry recommended.

**TOTAL CREDIT HOURS: 40**



# MACHINING TECHNOLOGY

**D 50 30 0**

**Diploma**

**Evening**

## CURRICULUM DESCRIPTION

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies and in a wide range of specialty machining job shops.

## SPRING - 2nd Year

MAC 113	Machining Technology III	2	12	6
MAC 122	CNC Turning	1	3	2
		3	15	8

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. One unit of algebra recommended.
2. One unit of geometry recommended.

**TOTAL CREDIT HOURS: 40**

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	CL Lb Cr

### FALL - 1st Year

BPR 111	Blueprint Reading	1	2	2
CIS 111	Basic PC Literacy	1	2	2
MAC 111A	Machining Technology IA	1	6	3
MAC 151	Machining Calculations	1	2	2
		4	12	9

### SPRING - 1st Year

BPR 121	Blueprint Reading: Mechanical	1	2	2
ISC 113	Industrial Specifications	1	0	1
MAC 111B	Machining Technology IB	1	6	3
MAT 120	Geometry and Trigonometry	2	2	3
		5	10	9

### SUMMER - 1st Year

ENG 115	Oral Communication	3	0	3
MAC 112A	Machining Technology IIA	1	6	3
		4	6	6

### FALL - 2nd Year

MAC 112B	Machining Technology IIB	1	6	3
MAC 124	CNC Milling	1	3	2
MEC 172	Intro to Metallurgy	2	2	3
		4	11	8

# MACHINING TECHNOLOGY

## Tool, Die, and Mold Making Concentration

A 50 30 A

A.A.S.

Day and Evening

This consortium curriculum is offered to students at Forsyth Technical Community College through an agreement with Davidson County Community College.

### CURRICULUM DESCRIPTION

Tool, Die, and Mold Making is a concentration under the curriculum title of Machining Technology. This curriculum is designed to develop skills in the use of hand tools, computerized equipment, and precision instruments for machine tooling used for the mass production of parts.

Students will learn to interpret blueprints, set up manual and CNC machines, and perform basic and advanced machining operations. Emphasis will be placed on the production of tooling used for punching, stamping, and molding of parts.

Graduates should qualify for employment opportunities in manufacturing industries and tool, die, and mold making industries.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week	CL	Lb	Cr
--------------	----------------	----	----	----

#### FALL - 1st Year

BPR 111	Blueprint Reading	1	2	2
CIS 111	Basic PC Literacy	1	2	2
ENG 115	Oral Communications	3	0	3
MAC 111	Machining Technology I	2	12	6
MAC 151	Machining Calculations	<u>1</u>	<u>2</u>	<u>2</u>
		<b>8</b>	<b>18</b>	<b>15</b>

#### SPRING - 1st Year

BPR 121	Blueprint Reading: Mechanical	1	2	2
MAC 112	Machining Technology II	2	12	6
MAC 124	CNC Milling	1	3	2
MAT 120	Geometry and Trigonometry	2	2	3
MEC 172	Introduction to Metallurgy	<u>2</u>	<u>2</u>	<u>3</u>
		<b>8</b>	<b>21</b>	<b>16</b>

#### SUMMER - 1st Year

ISC 113	Industrial Specifications	1	0	1
MAC 113	Machining Technology III	2	12	6
MAC 122	CNC Turning	<u>1</u>	<u>3</u>	<u>2</u>
		<b>4</b>	<b>15</b>	<b>9</b>

#### FALL - 2nd Year

DFT 121	Introduction to GD&T	1	2	2
ENG 111	Expository Writing	3	0	3
MAC 153	Compound Angles	1	2	2
MAC 243	Die Making I	2	6	4
MAC 245	Mold Construction I	<u>2</u>	<u>5</u>	<u>4</u>
		<b>9</b>	<b>16</b>	<b>15</b>

#### SPRING - 2nd Year

MAC 244	Die Making II	1	9	4
MAC 246	Mold Construction II	1	9	4
---	Social/Behavioral Science Elective (See your advisor.)	3	0	3
---	Humanities/Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>8</b>	<b>18</b>	<b>14</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. One unit of algebra recommended.
2. One unit of geometry recommended.

**TOTAL CREDIT HOURS: 69**

# MAGNETIC RESONANCE IMAGING

## C 45 20 0 M                      Certificate                      Day

### CURRICULUM DESCRIPTION

The Magnetic Resonance Imaging certificate, a specialty for radiographers and nuclear medicine technologists, prepares the individual to use specialized equipment to visualize cross-sectional anatomical structures and aid physicians in the demonstration of pathologies and disease processes. *Individuals entering this curriculum must be registered or registry eligible technologists by the ARRT in Radiography or Nuclear Medicine.*

Course work prepares the technologist to provide patient care and perform studies utilizing imaging equipment, professional communication, and quality assurance in scheduled and emergency procedures through academic and clinical studies.

Graduates may be eligible to sit for the American Registry of Radiologic Technologist Advanced-Level testing in Magnetic Resonance Imaging. They may find employment in facilities which perform these imaging procedures.

4. Completion of program orientation requirements which may include observational hours prior to acceptance.
5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
6. Completion of the **Forsyth Tech Student Medical Form.**

### Program Information:

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; grade point average from accredited Imaging program; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, MRI prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl   Lb   Cn   Cr

#### SPRING

MRI 210 MRI Physics and Equipment	3	0	0	3
MRI 211 MRI Procedures	4	0	0	4
MRI 227 MRI Clinical Practicum	0	0	21	7
	7	0	21	14

**TOTAL CREDIT HOURS: 18**

#### SUMMER (FIRST HALF TERM)

MRI 224 MRI Clinical Practicum	0	0	12	4
	0	0	12	4

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Written recommendations completed on the college approved form.
3. Current cardiopulmonary resuscitation certification at the Health Care Provider level.

# MANUFACTURING ENGINEERING TECHNOLOGY

**A 40 30 0**

**A.A.S.**

**Day**

## CURRICULUM DESCRIPTION

The Manufacturing Engineering Technology curriculum prepares individuals for employment in the fields of manufacturing technology. The curriculum emphasizes the theory and training required to effectively augment manufacturing engineers in industry.

Courses include a background in mechanical and related theory and the use of manufacturing and analytical equipment. Industrial standards such as EPA, OSHA, GD&T, and ISO are discussed. Computer usage for process control and effective communication skills is emphasized.

Graduates of this curriculum qualify for positions as engineering technicians. Some of the responsibilities include drafting, process specification, tooling selection, automation programming, project facilitation, and supervision. Certification is available through organizations such as ASQC, SME, and NICET.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
		Cl	Lb	Cr

### FALL - 1st Year

CHM 130	Gen, Org, & Biochemistry	3	0	3
CHM 130A	Gen, Org, & Biochemistry Lab	0	2	1
CIS 111	Basic PC Literacy	1	2	2
DFT 111	Tech. Drafting I	1	3	2
ENG 111	Expository Writing	3	0	3
MAT 121	Algebra/Trigonometry I	<u>2</u>	<u>2</u>	<u>3</u>
		<b>10</b>	<b>9</b>	<b>14</b>

### SPRING - 1st Year

ENG 114	Professional Research and Reporting	3	0	3
MAT 122	Algebra/Trigonometry II	2	2	3
MEC 111	Machine Processes I	2	3	3
MEC 180	Engineering Materials	2	3	3
PHY 131	Physics - Mechanics	<u>3</u>	<u>2</u>	<u>4</u>
		<b>12</b>	<b>10</b>	<b>16</b>

### SUMMER - 1st Year

DFT 151	CAD I	2	3	3
ELC 111	Intro. to Electricity	2	2	3
HYD 110	Hydr. & Pneumatics	2	3	3
MAT 223	Applied Calculus	<u>2</u>	<u>2</u>	<u>3</u>
		<b>8</b>	<b>10</b>	<b>12</b>

### FALL - 2nd Year

ISC 132	Mfg. Quality Control	2	3	3
ISC 151	Plant Layout	2	2	3
MEC 161	Mfg. Processes I	3	0	3
MEC 161A	Mfg. Processes I (lab)	0	3	1
MEC 237	Control Systems	3	2	4
MEC 251	Statics	<u>2</u>	<u>2</u>	<u>3</u>
		<b>12</b>	<b>12</b>	<b>17</b>

### SPRING - 2nd Year

ENG 131	Introduction to Literature	3	0	3
ISC 112	Industrial Safety	2	0	2
MEC 252	Strength of Materials	2	2	3
MEC 280	Robotics and CIM	3	2	4
----	Social/Behavioral Science Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>13</b>	<b>4</b>	<b>15</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. One unit of algebra.
2. One unit of geometry.
3. High school physics recommended.
4. High school chemistry recommended.

**TOTAL CREDIT HOURS: 74**



# MANUFACTURING ENGINEERING TECHNOLOGY

**C 40 30 0**
**Certificate**
**Day**

## **CURRICULUM DESCRIPTION:**

The Manufacturing Engineering Technology certificate curriculum is targeted at persons employed in design and manufacturing-related industries. The primary objective of this program is the development of the student's mechanical analytical abilities required for advancement. The program provides the foundation to handle higher-level technical skills in the ever-advancing technological industrial environment.

## **CURRICULUM BY SEMESTERS**

Course Title	Hours Per Week	
	Cl Lb Cr	

### **FALL - 1st Year**

DFT 111 Tech. Drafting I	1	3 2
MAT 121 Algebra/ Trigonometry I	2 2	3 5
	3	5 5

### **SPRING - 1st Year**

PHY 131 Physics-Mechanics	3 2	4 2 4
	3	2 4

### **FALL - 2nd Year**

MEC 251 Statics	2 2	3 2 3
	2	2 3

### **SPRING - 2nd Year**

MEC 252 Strength of Materials	2 2	3 2 3
	2	2 3

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. High school Algebra I required.
2. High school physics recommended.

**TOTAL CREDIT HOURS: 15**

# MECHANICAL ENGINEERING TECHNOLOGY

## Drafting and Design Concentration

**A 40 32 A**

**A.A.S.**

**Day**

### CURRICULUM DESCRIPTION

The Mechanical Engineering Technology curriculum prepares graduates for employment as mechanical technicians. Typical assignments would include assisting in the design, development, testing and repair of mechanical equipment. Emphasis is placed on the integration of theory and mechanical principles.

Course work includes applied mechanics, manufacturing methods and processes, computer usage, computer-aided drafting, mathematics, physics, and oral and written communications. The courses will stress critical thinking, planning, and problem solving.

Graduates of the curriculum will find employment opportunities in the diversified branches of the mechanical field. Mechanical engineering technicians are employed in many types of manufacturing, fabrication, research and development, and service industries.

### SUMMER - 1st Year

DDF 211	Design Drafting I	2	6	4
DFT 151	CAD I	2	3	3
HYD 110	Hydraulics & Pneumatics	<u>2</u>	<u>3</u>	<u>3</u>
		<b>6</b>	<b>12</b>	<b>10</b>

### FALL - 2nd Year

DDF 212	Design Drafting II	1	6	4
DDF 214	Tool Design	2	4	4
DFT 152	CAD II	2	3	3
MEC 251	Statics	<u>2</u>	<u>2</u>	<u>3</u>
		<b>7</b>	<b>15</b>	<b>14</b>

### SPRING - 2nd Year

DDF 213	Design Drafting III	1	6	4
DFT 121	Intro to GD&T	1	2	2
DFT 153	CAD III	2	3	3
ENG 131	Intro to Literature	3	0	3
MEC 180	Engineering Materials	2	3	3
MEC 252	Strength of Materials	<u>2</u>	<u>2</u>	<u>3</u>
		<b>11</b>	<b>16</b>	<b>18</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. One unit of algebra
2. One unit of geometry
3. High school physics recommended

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
	Cl	Lb	Cr	

#### FALL - 1st Year

CIS 111	Basic PC Literacy	1	2	2
DFT 111	Technical Drafting I	1	3	2
DFT 111A	Technical Drafting I Lab	0	3	1
ENG 111	Expository Writing	3	0	3
MAT 121	Algebra/Trig I	3	0	3
----	----- Social/Behavioral Science			
	Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>3</u>
		<b>11</b>	<b>8</b>	<b>14</b>

#### SPRING - 1st Year

DFT 112	Technical Drafting II	1	3	2
DFT 112A	Technical Drafting II Lab	0	3	1
ENG 114	Professional Research and Reporting	3	0	3
MAT 122	Algebra/Trig II	3	0	3
MEC 111	Machine Processes I	2	3	3
PHY 131	Physics - Mechanics	<u>3</u>	<u>2</u>	<u>4</u>
		<b>12</b>	<b>11</b>	<b>16</b>

**TOTAL CREDIT HOURS: 72**

# MEDICAL ASSISTING

A 45 40 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of CAAHEP accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physician's offices, health maintenance organizations, health department, and hospitals.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week	CI	Lb	Cn	Cr
--------------	----------------	----	----	----	----

### FALL - 1st Year

ACC 111	Accounting I	3	0	0	3
CIS 111	Basic PC Literacy	1	2	0	2
MAT 110	Math Measurement	2	2	0	3
MED 110	Orientation to Med Asst	1	0	0	1
MED 120	Survey of Medical Terminology	2	0	0	2
OST 131	Keyboarding	1	2	0	2
		11	6	0	13

### SPRING - 1st Year

ENG 111	Expository Writing	3	0	0	3
MED 118	Medical Law and Ethics	2	0	0	2
MED 121	Medical Terminology I	3	0	0	3
MED 130	Admin. Office Proc I	1	2	0	2
OST 134	Text Entry and Formatting	3	2	0	4
----	Humanities/ Fine Arts Elective (See your advisor.)	3	0	0	3
		15	4	0	17

## SUMMER - 1st Year

MED 122	Medical Terminology II	3	0	0	3
MED 131	Admin. Office Proc II	1	2	0	2
MED 140	Exam Room Proc I	3	4	0	5
		7	6	0	10

## FALL - 2nd Year

MED 134	Med. Transcription	2	2	0	3
MED 150	Lab Proc I	3	4	0	5
MED 240	Exam Room Proc II	3	4	0	5
MED 272	Drug Therapy	3	0	0	3
		11	10	0	16

## SPRING - 2nd Year

ENG 115	Oral Communications	3	0	0	3
MED 260	Clinical Lab	0	0	15	5
MED 262	Clinical Prospectives	1	0	0	1
MED 276	Patient Education	1	2	0	2
PSY 150	General Psychology	3	0	0	3
		8	2	15	14

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. Physical exam.
2. High school Algebra I recommended.
3. High school biology recommended.
4. High school chemistry recommended.

This program has limited enrollment. Those students first to meet the admission requirements before the admission deadline will be admitted as space allows. The admissions office can provide additional information on the admission process. A grade of C or better is required for all MED courses. Failure to meet this requirement may result in dismissal from the program. Readmission may be possible but requires reapplication and approval by the college.

**TOTAL CREDIT HOURS: 70**

# MEDICAL LABORATORY TECHNOLOGY

A 45 42 0

A.A.S.

Day

This consortium curriculum is offered to students at Forsyth Technical Community College through an agreement with **Davidson County Community College**.

## CURRICULUM DESCRIPTION

The Medical Laboratory Technology curriculum prepares individuals to perform clinical laboratory procedures in chemistry, hematology, microbiology, and immunochemistry that may be used in the maintenance of health and diagnosis/treatment of disease.

Course work emphasizes mathematical and scientific concepts related to specimen collection, laboratory testing and procedures, quality assurance, and reporting/recording and interpreting findings involving tissues, blood, and body fluids.

Graduates may be eligible to take examinations given by the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists or the National Certifying Agency. Employment opportunities include laboratories in hospitals, medical offices, industry, and research facilities.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

### FALL - 1st Year

BIO 163* Basic Anatomy and Physiology	4	2	0	5
CHM130* Gen., Org., and Biochemistry	3	0	0	3
CHM 130A*Gen., Org., and Biochemistry Lab	0	2	0	1
MAT 115 Mathematical Models	2	2	0	3
MLT 110 Intro to Med Lab Tech	2	3	0	3
MLT 140 Intro to Microbiology	2	3	0	3
	13	12	0	18

### SPRING - 1st Year

ENG 111* Expository Writing	3	0	0	3
MLT 111 Urinalysis and Body Fluids	1	3	0	2
MLT 120 Hematology/Hemostasis	3	3	0	4
MLT 125 Immunochemistry I	4	3	0	5
PSY 150* General Psychology	3	0	0	3
	14	9	0	17

### SUMMER - 1st Year

COM110 Intro to Communication	3	0	0	3
ENG 113* Literature-Based Research	3	0	0	3
MLT 130 Clinical Chemistry	3	3	0	4
	9	3	0	10

### FALL - 2nd Year

MLT 216 Professional Issues	0	2	0	1
MLT 240 Special Clinical Microbiology	2	3	0	3
MLT 257 MLT Practicum I	0	0	24	8
	2	5	24	12

### SPRING - 2nd Year

MLT 215 Professional Issues	1	0	0	1
MLT 269 MLT Practicum II	0	0	33	11
	1	0	33	12

\*These courses will be taught on the Forsyth Tech campus. All other courses will be taught on the Davidson County Community College campus.

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra. Credit for chemistry is granted only with a course grade of C or better.
2. No grade below C in Medical Laboratory curriculum courses taken prior to program entry.
3. Completion of program orientation requirements.
4. Overall grade point average of 2.0 on those courses completed at Forsyth Tech which are listed as program course requirements.
5. Completion of the **Forsyth Tech Student Medical Form**.

### Program Information:

This program has limited enrollment. Those students first to meet the admissions requirements before the admission deadline will be admitted as space allows. The admissions office can provide additional information on the admission process.

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A grade of F or any withdrawal in any required science course, MLT prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. A grade of C or better is required in all MLT courses or the student will be dismissed. Readmission may be possible but requires reapplication and approval by the College.

The program is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS).

**TOTAL CREDIT HOURS: 69**

# MEDICAL SONOGRAPHY

A 45 44 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

The Medical Sonography curriculum provides knowledge and clinical skills in the application of high frequency sound waves to image internal body structures.

Course work includes physics, cross-sectional anatomy, abdominal, introductory vascular, and obstetrical/gynecological sonography. Competencies are attained in identification of normal anatomy and pathological processes, use of equipment, fetal growth and development, integration of related imaging, and patient interaction skills.

Graduates of accredited programs may be eligible to take examinations in ultrasound physics and instrumentation and specialty examinations administered by the American Registry of Diagnostic Medical Sonographers and find employment in clinics, physicians' offices, mobile services, hospitals and educational institutions.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week	Cl	Lb	Cn	Cr
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### FALL - 1st Year

BIO 163	Basic Anatomy and Physiology	4	2	0	5
ENG 111	Expository Writing	3	0	0	3
MAT 115	Mathematical Models	2	2	0	3
SON 110	Intro to Sonography	1	3	3	3
SON 130	Abdominal SON I	<u>2</u>	<u>3</u>	<u>0</u>	<u>3</u>
		12	10	3	17

### SPRING - 1st Year

ENG 112	Argument-Based Research	3	0	0	3
	<b>OR</b>				
ENG 113	Literature-Based Research	3	0	0	3
	<b>OR</b>				
ENG 114	Professional Research and Reporting	3	0	0	3
SON 111	Sonographic Physics	3	3	0	4
SON 120	SON Clinical Ed I	0	0	15	5
SON 131	Abdominal SON II	1	3	0	2
SON 140	Gynecological SON	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
		9	6	15	16

### SUMMER - 1st Year

PSY 150	General Psychology	3	0	0	3
SON 121	SON Clinical Ed II	<u>0</u>	<u>0</u>	<u>15</u>	<u>5</u>
		3	0	15	8

### FALL - 2nd Year

SON 220	SON Clinical Ed III	0	0	24	8
SON 225	Case Studies	0	3	0	1
SON 241	Obstetrical SON I	2	0	0	2
SON 274	Neurosonology	2	0	0	2
----	----- Humanities/ Fine Arts Elective (See your advisor.)	3	0	0	3
		7	3	24	16

### SPRING - 2nd Year

SON 221	SON Clinical Ed IV	0	0	24	8
SON 242	Obstetrical SON II	2	0	0	2
SON 250	Vascular Sonography	1	3	0	2
SON 272	Advanced Pathology	0	3	0	1
SON 276	Fetal Echocardiography	1	0	0	1
SON 289	Sonographic Topics	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
		6	6	24	16

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra. Effective for Fall 2000 admissions, successful completion of a physics course prior to the first semester of program enrollment is required.
2. Written recommendations completed on the college approved form.
3. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
4. Completion of program orientation requirements which may include observational hours prior to acceptance.
5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
6. Completion of the **Forsyth Tech Student Medical Form.**

### Program Information:

This program has limited enrollment. Students are chosen by a selective admissions

*Continued on next page.*

process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, SON prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

**TOTAL CREDIT HOURS: 73**

# MEDICAL TRANSCRIPTION

**D 25 32 0**
**Diploma**
**Day**

## CURRICULUM DESCRIPTION:

The Medical Transcription curriculum prepares individuals to become medical language specialists who interpret and transcribe dictation by physicians and other healthcare professionals in order to document patient care and facilitate delivery of healthcare services.

Students will gain extensive knowledge of medical terminology, pharmacology, human diseases, diagnostic studies, surgical procedures, and laboratory procedures. In addition to word processing skill and knowledge of voice procession equipment, students must master English grammar, spelling, and proofreading.

Graduates should qualify for employment in hospitals, medical clinics, doctors' offices, private transcription businesses, research facilities, insurance companies, and publishing companies. After acquiring work experience, individuals can apply to the American Association for Medical Transcription to become Certified Medical Transcriptionists.

## SUMMER

MED116	Intro to A & P	3	2	0	4
MED122	Medical Terminology II	3	0	0	3
OST 203	Fundamentals of Documentation	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>9</b>	<b>2</b>	<b>0</b>	<b>10</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Keyboarding skills recommended.
2. Ability to type 30 WPM on a timed test *or* completion of OST 131.

**TOTAL CREDIT HOURS: 39**

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

### FALL

ENG 111	Expository Writing	3	0	0	3
MED120	Survey of Medical Terminology	2	0	0	2
MED272	Drug Therapy	3	0	0	3
OST 136	Word Processing	1	2	0	2
OST 201	Medical Transcription I	<u>3</u>	<u>2</u>	<u>0</u>	<u>4</u>
		<b>12</b>	<b>4</b>	<b>0</b>	<b>14</b>

### SPRING

MED118	Medical Law and Ethics	2	0	0	2
MED121	Med Terminology I	3	0	0	3
OST 164	Text Applications	3	0	0	3
OST 202	Med Transcription II	3	2	0	4
-----	Humanities/Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>14</b>	<b>2</b>	<b>0</b>	<b>15</b>



# NUCLEAR MEDICINE TECHNOLOGY

**A 45 46 0**

**A.A.S.**

**Day**

## CURRICULUM DESCRIPTION

The Nuclear Medicine Technology curriculum provides the clinical and didactic experience necessary to prepare students to qualify as entry-level Nuclear Medicine Technologists.

Students will acquire the knowledge and skills necessary to properly perform clinical procedures. These skills include patient care, use of radioactive materials, operation of imaging and counting instrumentation, and laboratory procedures.

Graduates may be eligible to apply for certification/registration examinations given by the Nuclear Medicine Technology Certification Board and the American Registry of Radiologic Technologists.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr	

### FALL - 1st Year

BIO 163	Basic Anatomy and Physiology	4	2	0	5
CHM 130	General, Organic and Biochemistry	3	0	0	3
CHM 130A	General, Organic & Biochemistry Lab	0	2	0	1
ENG 111	Expository Writing	3	0	0	3
ENG 115	Oral Communication	3	0	0	3
MAT 115	Mathematical Models	<u>2</u>	<u>2</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>6</b>	<b>0</b>	<b>18</b>

### SPRING - 1st Year

MAT 151	Statistics I	3	0	0	3
NMT 110	Intro to Nuclear Med.	2	0	0	2
NMT 110A	Intro to Nuclear Medicine Lab	0	3	0	1
NMT 126	Nuclear Physics	2	0	0	2
PHY 125	Health Sciences Physics	3	2	0	4
PSY 150	General Psychology	3	0	0	3
----	Humanities/ Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>16</b>	<b>5</b>	<b>0</b>	<b>18</b>

## SUMMER - 1st Year

NMT 132	Overview - Clinical Nuclear Medicine	2	0	6	4
NMT 134	Nuclear Pharmacy	2	0	0	2
NMT 136	Health Physics	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
		<b>6</b>	<b>0</b>	<b>6</b>	<b>8</b>

## FALL - 2nd Year

NMT 211	NMT Clinical Practice I	0	0	21	7
NMT 212	Procedures for Nuclear Medicine I	2	0	0	2
NMT 212A	Procedures for Nuclear Med. Lab	0	3	0	1
NMT 214	Radiobiology	2	0	0	2
NMT 215	Non-Imaging Instrumentation	1	3	0	2
NMT 218	Computers in Nuclear Med.	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
		<b>7</b>	<b>6</b>	<b>21</b>	<b>16</b>

## SPRING - 2nd Year

NMT 221	Nuclear Medicine Technology Clinical Practice II	0	0	21	7
NMT 222	Procedures for Nuclear Med. II	2	0	0	2
NMT 222A	Procedures for Nuclear Medicine Lab	0	3	0	1
NMT 224	In Vitro Procedures	2	0	0	2
NMT 224A	In Vitro Proc Lab	0	3	0	1
NMT 225	Imaging Instrumentation	<u>1</u>	<u>3</u>	<u>0</u>	<u>2</u>
		<b>5</b>	<b>9</b>	<b>21</b>	<b>15</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Written recommendations completed on the college approved form.
3. Completion of program orientation requirements which may include observational hours prior to acceptance.
4. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
5. Completion of the **Forsyth Tech Student Medical Form.**

*Continued on next page.*

**Program Information:**

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, NMT prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

**TOTAL CREDIT HOURS: 75**

# OCCUPATIONAL THERAPY ASSISTANT

**A 45 50 0                      A.A.S.                      Day**

This consortium curriculum is offered to students at Forsyth Technical Community College through an agreement with **Rockingham Community College.**

## CURRICULUM DESCRIPTION

The Occupational Therapy Assistant curriculum prepares individuals to work under the supervision of a registered/licensed occupational therapist in screening, assessing, planning, and implementing treatment and documenting progress for clients receiving occupational therapy services.

Course work includes human growth and development, conditions which interfere with activities of daily living, theory and process of occupational therapy, individual/group treatment activities, therapeutic use of self, activity analysis, and grading/adapting activities and environments.

Graduates may be eligible to take the national certification examination for practice as a certified occupational therapy assistant. Employment opportunities include hospitals, rehabilitation facilities, long-term/extended care facilities, sheltered workshops, schools, home health programs, and community programs.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

### SPRING - 1st Year

BIO 168* Anatomy and Physiology I	3 3 0 4
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CIS 111* Basic PC Literacy	1 2 0 2
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**OR**

CIS 113* Computer Basics	(0) (2) (0) (1)
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ENG 111* Expository Writing	3 0 0 3
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OTA 110 Fundamentals of OT	2 3 0 3
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OTA 120 OT Media I	1 3 0 2
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PSY 150* General Psychology	3 0 0 3
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**13 11 0 17**

**(12)(11) (0)(16)**

### SUMMER - 1st Year

BIO 169* Anatomy and Physiology II	3 3 0 4
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OTA 140 Professional Skills I	0 3 0 1
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PSY 241* Developmental Psychology	3 0 0 3
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PSY 281* Abnormal Psychology	3 0 0 3
	<b>9 6 0 11</b>

### FALL - 1st Year

OTA 130 Assessment Skills	2 3 0 3
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OTA 150 Life Span Skills I	2 3 0 3
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OTA 161 Fieldwork I, 1	0 0 3 1
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OTA 162 Fieldwork I, 2	0 0 3 1
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OTA 163 Fieldwork I, 3	0 0 3 1
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OTA 170 Physical Dysfunction 2	3 0 3
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OTA 180 Psychosocial Dysfunction	2 3 0 3
	<b>8 12 9 15</b>

### SPRING - 2nd Year

ENG 114* Professional Research and Reporting	3 0 0 3
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OTA 220 OT Media II	1 6 0 3
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OTA 240 Professional Skills II	0 3 0 1
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OTA 250 Life Span Skills II	2 3 0 3
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---- Humanities/ Fine Arts Elective (See your advisor.)	3 0 0 3
	<b>9 12 0 13</b>

### SUMMER - 2nd Year

OTA 225 OT Media III	1 3 0 2
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OTA 245 Professional Skills III	0 3 0 1
	<b>1 6 0 3</b>

### FALL - 2nd Year

OTA 260 Fieldwork II, 1	0 0 18 6
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OTA 261 Fieldwork II, 2	0 0 18 6
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OTA 280 Professional Transitions	0 2 0 1
	<b>0 2 36 13</b>

\*These courses will be taught on the Forsyth Tech campus. All other courses will be taught on the Rockingham Community College campus.

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

*Continued on next page.*

1. Applicants must have a high school grade point average of 2.5 or higher on a 4.0 scale or equivalent GED total of 253 or have a minimum 2.5 GPA on selected college work.
2. Completion of high school or college credits in biology, chemistry and algebra. Biology and chemistry grades must average 2.5 or higher.
3. Minimum of ten (10) volunteer hours in an OTA related field.
4. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
5. Additional requirements for Rockingham Community College must be met prior to entrance to the program.

**Program Information:**

This program has limited enrollment. Those students first to meet the admissions requirements before the admission deadline will be admitted as space allows. The admissions office can provide additional information on the admission process.

A grade of C or better is required for all OTA courses. Failure to meet this requirement may result in dismissal from the program.

This program has been awarded Developing Program Status as of April 1998. Developing Program Status indicates that the Accreditation Council for Occupational Therapy Education (ACOTE) approved development of the program based on the submitted plan. For graduates to be eligible for the national certification and licensure in North Carolina, the student must graduate from an accredited Occupational Therapy Assistant Program. Although Developing Program status does not guarantee accreditation of the program, RCC plans to fully implement the approved program and will work towards accreditation.

**TOTAL CREDIT HOURS: 72 (71)**



# OFFICE SYSTEMS TECHNOLOGY

A 25 36 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

The Office Systems Technology curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communications, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on nontechnical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management. Graduates receive preparation to take the Certified Professional Secretary (CPS) exam.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL - 1st Year

BUS 151	People Skills	3	0	3
CIS 111	Basic PC Literacy	1	2	2
ENG 111	Expository Writing	3	0	3
OST 131	Keyboarding	1	2	2
OST 162	Executive Terminology	3	0	3
OST 184	Records Management	1	2	2
		12	6	15

### SPRING - 1st Year

CIS 120	Spreadsheet I	2	2	3
ENG 115	Oral Communication	3	0	3
	<b>OR</b>			
COM231	Public Speaking	3	0	3
MAT 115	Mathematical Models	2	2	3
OST 134	Text Entry and Formatting	2	2	3
PSY 150	General Psychology	3	0	3
		12	6	15

### SUMMER - 1st Year

OST 135	Adv Text Entry and Formatting	3	2	4
OST 164	Text Editing Applications	3	0	3
OST 181	Introduction to Office Systems	2	2	3
		8	4	10

### FALL - 2nd Year

ACC 120	Principles of Accounting I	3	2	4
BUS 115	Business Law I	3	0	3
CIS 162	MM Presentation Software	2	2	3
OST 223	Machine Transcription I	1	2	2
----	Humanities/Fine Arts Elective (see your advisor)	3	0	3
		12	6	15

### SPRING - 2nd Year

ACC 150	Computerized Gen Ledger	1	2	2
CIS 152	Data Base Concepts & Apps.	2	2	3
ENG 114	Professional Research and Reporting	3	0	3
OST 137	Office Software Applications	1	2	2
OST 224	Machine Transcription II	1	2	2
OST 289	Office Systems Management	2	2	3
		10	10	15

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. High school accounting recommended.
2. High school keyboarding recommended.

**TOTAL CREDIT HOURS: 70**

# OFFICE SYSTEMS TECHNOLOGY

A 25 36 0

A.A.S.

Evening

## CURRICULUM DESCRIPTION

The Office Systems Technology curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communications, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on nontechnical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management. Graduates receive preparation to take the Certified Professional Secretary (CPS) exam.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL - 1st Year

ENG 111	Expository Writing	3	0	3
OST 131	Keyboarding	1	2	2
OST 162	Executive Terminology	<u>3</u>	<u>0</u>	<u>3</u>
		7	2	8

### SPRING - 1st Year

CIS 111	Basic PC Literacy	1	2	2
OST 134	Text Entry and Formatting	2	2	3
OST 164	Text Editing Applications	<u>3</u>	<u>0</u>	<u>3</u>
		6	4	8

### SUMMER - 1st Year

BUS 115	Business Law I	3	0	3
ENG 115	Oral Communication	3	0	3
	<b>OR</b>			
COM231	Public Speaking	<u>3</u>	<u>0</u>	<u>3</u>
		6	0	6

### FALL - 2nd Year

OST 135	Adv Text Entry and Formatting	3	2	4
OST 181	Introduction to Office Systems	2	2	3
OST 184	Records Management	<u>1</u>	<u>2</u>	<u>2</u>
		6	6	9

### SPRING - 2nd Year

ACC 120	Principles of Accounting I	3	2	4
BUS 151	People Skills	<u>3</u>	<u>0</u>	<u>3</u>
		6	2	7

### SUMMER - 2nd Year

CIS 120	Spreadsheet I	2	2	3
----	Humanities/Fine Arts Elective (see your advisor)	<u>3</u>	<u>0</u>	<u>3</u>
		5	2	6

*Students should take this sequence when the Fall Semester begins on even-number years.*

### FALL - 3rd or 4th Year

CIS 162	MM Presentations Software	2	2	3
ENG 114	Professional Research and Reporting	<u>3</u>	<u>0</u>	<u>3</u>
		5	2	6

### SPRING - 3rd or 4th Year

CIS 152	Data Base Concepts & Apps.	2	2	3
OST 137	Office Software Applications	<u>1</u>	<u>2</u>	<u>2</u>
		3	4	5

### SUMMER - 3rd Year

ACC 150	Computerized Gen Ledger	1	2	2
PSY 150	General Psychology	<u>3</u>	<u>0</u>	<u>3</u>
		4	2	5

*Students should take this sequence when the Fall Semester begins on odd-number years.*

### FALL - 3rd or 4th Year

OST 223	Machine Transcription I	1	2	2
MAT 115	Mathematical Models	<u>2</u>	<u>2</u>	<u>3</u>
		3	4	5

### SPRING - 3rd or 4th Year

OST 224	Machine Transcription II	1	2	2
OST 289	Office Systems Management	<u>2</u>	<u>2</u>	<u>3</u>
		3	4	5

*Continued on next page.*

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

- 1. High school accounting recommended.
- 2. High school keyboarding recommended.

**TOTAL CREDIT HOURS: 70**

# OFFICE SYSTEMS TECHNOLOGY

D 25 36 0

Diploma

Day

## CURRICULUM DESCRIPTION

The Office Systems Technology diploma program prepares individuals for administrative office support and entry-level positions. It equips students to meet basic demands in small and large office environments.

Students will complete courses designed to develop proficiency in computer terminology, document formatting, word processing, basic grammar and editing, records management, and office procedures. In addition, students will receive training in several high-level software packages. Emphasis is placed on nontechnical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor with experience.

Students in the diploma program can easily transfer to the Office Systems Technology degree program.

## SUMMER -1st Year

OST 135	Adv. Text Entry and Formatting	3	2	4
OST 164	Text Editing Applications	3	0	3
OST 181	Introduction to Office Systems	<u>2</u>	<u>2</u>	<u>3</u>
		<b>8</b>	<b>4</b>	<b>10</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog: Keyboarding skills are recommended.

**TOTAL CREDIT HOURS: 36**

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week	CI	Lb	Cr
--------------	----------------	----	----	----

### FALL - 1st Year

BUS 151	People Skills	3	0	3
CIS 111	Basic PC Literacy	1	2	2
ENG 111	Expository Writing	3	0	3
OST 131	Keyboarding	1	2	2
OST 162	Executive Terminology	3	0	3
OST 184	Records Management	<u>1</u>	<u>2</u>	<u>2</u>
		<b>12</b>	<b>6</b>	<b>15</b>

### SPRING - 1st Year

CIS 120	Spreadsheet I	2	2	3
ENG 115	Oral Communication	3	0	3
	<b>OR</b>			
COM231	Public Speaking	3	0	3
OST 134	Text Entry and Formatting	2	2	3
-----	ACC, BUS, CIS, INT,			
	OST, Elective	<u>2</u>	<u>0</u>	<u>2</u>
		<b>9</b>	<b>4</b>	<b>11</b>



# OFFICE SYSTEMS TECHNOLOGY

D 25 36 0

Diploma

Evening

## CURRICULUM DESCRIPTION

The Office Systems Technology diploma program prepares individuals for administrative office support and entry-level positions. It equips students to meet basic demands in small and large office environments.

Students will complete courses designed to develop proficiency in computer terminology, document formatting, word processing, basic grammar and editing, records management, and office procedures. In addition, students will receive training in several high-level software packages. Emphasis is placed on nontechnical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor with experience.

Students in the diploma program can easily transfer to the Office Systems Technology degree program.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	CI Lb Cr

### FALL - 1st Year

ENG 111 Expository Writing	3 0 3
OST 131 Keyboarding	1 2 2
OST 162 Executive Terminology	<u>3</u> <u>0</u> <u>3</u>
	<b>7 2 8</b>

### SPRING - 1st Year

CIS 111 Basic PC Literacy	1 2 2
OST 134 Text Entry and Formatting	2 2 3
OST 164 Text Editing Applications	<u>3</u> <u>0</u> <u>3</u>
	<b>6 4 8</b>

### SUMMER -1st Year

ENG 115 Oral Communication	3 0 3
<b>OR</b>	
COM231 Public Speaking	3 0 3
----- ACC, BUS, CIS, INT,	
OST, Elective	<u>2</u> <u>0</u> <u>2</u>
	<b>5 0 5</b>

## FALL - 2nd Year

OST 135 Adv Text Entry and Formatting	3 2 4
OST 181 Introduction to Office Systems	2 2 3
OST 184 Records Management	<u>1</u> <u>2</u> <u>2</u>
	<b>6 6 9</b>

## SPRING - 2nd Year

BUS 151 People Skills	3 0 3
CIS 120 Spreadsheet I	2 2 3
	<b>5 2 6</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

Keyboarding skills are recommended.

**TOTAL CREDIT HOURS: 36**

## OFFICE SYSTEMS TECHNOLOGY

C 25 36 0

Certificate

Day

### CURRICULUM DESCRIPTION

The Office Systems Technology certificate program prepares individuals for general office support and entry-level positions. It equips students to meet basic demands in small and large office environments.

Students will complete courses designed to develop proficiency in computer terminology, document formatting, word processing, records management, and document editing. Emphasis is placed on nontechnical as well as technical skills.

Graduates should qualify for entry-level employment in a variety of positions in business, government, and industry.

Students in the certificate program can easily transfer to the Office Systems Technology diploma or degree programs.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

#### FALL

OST 131	Keyboarding	1	2	2
OST 162	Executive Terminology	3	0	3
OST 184	Records Management	<u>1</u>	<u>2</u>	<u>2</u>
		<b>5</b>	<b>4</b>	<b>7</b>

#### SPRING

CIS 111	Basic PC Literacy	1	2	2
OST 134	Text Entry and Formatting	2	2	3
OST 164	Text Editing Applications	<u>3</u>	<u>0</u>	<u>3</u>
		<b>6</b>	<b>4</b>	<b>8</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:  
Keyboarding skills are recommended.

**TOTAL CREDIT HOURS: 15**

# OFFICE SYSTEMS TECHNOLOGY

C 25 36 0

Certificate

Evening

## CURRICULUM DESCRIPTION

The Office Systems Technology certificate program prepares individuals for general office support and entry-level positions. It equips students to meet basic demands in small and large office environments.

Students will complete courses designed to develop proficiency in computer terminology, document formatting, word processing, records management, and document editing. Emphasis is placed on nontechnical as well as technical skills.

Graduates should qualify for entry-level employment in a variety of positions in business, government, and industry.

Students in the certificate program can easily transfer to the Office Systems Technology diploma or degree programs.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

OST 131	Keyboarding	1	2	2
OST 162	Executive Terminology	3	0	3
OST 184	Records Management	<u>1</u>	<u>2</u>	<u>2</u>
		<b>5</b>	<b>4</b>	<b>7</b>

### SPRING

CIS 111	Basic PC Literacy	1	2	2
OST 134	Text Entry and Formatting	2	2	3
OST 164	Text Editing Applications	<u>2</u>	<u>0</u>	<u>3</u>
		<b>6</b>	<b>4</b>	<b>8</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:  
Keyboarding skills are recommended.

**TOTAL CREDIT HOURS: 15**

# PARALEGAL TECHNOLOGY

A 25 38 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks and assisting with substantive legal work. A paralegal/legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Course work includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills, estates, trusts, and commercial law. Required courses also include subjects such as English, mathematics, and computer utilization.

Graduates are trained to assist attorneys in probate work, investigations, public records search, drafting and filing legal documents, research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies, and other business organizations.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr

### FALL - 1st Year

CIS 110	Intro to Computers	2	2	0	3
	<b>OR</b>				
CIS 111	Basic PC Literacy	(1)	(2)	(0)	(2)
LEX 110	Intro to Paralegal Studies	2	0	0	2
LEX 140	Civil Litigation I	3	0	0	3
LEX 240	Family Law	3	0	0	3
LEX 280	Ethics	2	0	0	2
OST 131	Keyboarding	<u>1</u>	<u>2</u>	<u>0</u>	<u>2</u>
		<b>13</b>	<b>4</b>	<b>0</b>	<b>15</b>
		<b>(12)</b>	<b>(4)</b>	<b>(0)</b>	<b>(14)</b>

### SPRING - 1st Year

ENG 111	Expository Writing	3	0	0	3
LEX 150	Commercial Law I	2	2	0	3
LEX 250	Wills, Trusts and Estates	2	2	0	3
MAT 115	Mathematical Models	2	2	0	3
	<b>OR</b>				
MAT 140	Survey of Mathematics	<u>2</u>	<u>2</u>	<u>0</u>	<u>3</u>
		<b>9</b>	<b>6</b>	<b>0</b>	<b>12</b>

Select 1 additional course from LEX Electives.\*

## SUMMER - 1st Year

ACC 120	Principles of Accounting I	3	2	0	4
ENG 114	Professional Research and Reporting	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>6</b>	<b>2</b>	<b>0</b>	<b>7</b>

Select 1 additional course from LEX Electives.\*

## FALL - 2nd Year

LEX 120	Legal Research and Writing I	2	2	0	3
LEX 210	Real Property I	3	0	0	3
OST 134	Text Entry and Formatting	3	2	0	4
-----	Humanities/Fine Arts Elective (See your advisor.)	3	0	0	3
	<b>OR</b>				
-----	Social/Behavioral Science Elective (see your advisor)	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>11</b>	<b>4</b>	<b>0</b>	<b>13</b>

Select 1 additional course from LEX Electives.\*

## SPRING - 2nd Year

COE 111	Co-op Work Experience	0	0	10	1
	<b>OR</b>				
----	Elective	0	0	10	1
COE 115	Work Experience Seminar	1	0	0	1
	<b>OR</b>				
----	Elective	1	0	0	1
LEX 121	Legal Research and Writing II	2	2	0	3
LEX 130	Civil Injuries	3	0	0	3
-----	Humanities/Fine Arts Elective (see your advisor)	3	0	0	3
	<b>OR</b>				
-----	Social/Behavioral Science Elective (see your advisor)	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>9</b>	<b>2</b>	<b>10</b>	<b>11</b>

Select 2 additional courses from LEX Electives.\*

Continued on next page.



**\*LEX Electives (Hours per week vary depending on course selection.):** 141, 151, 160, 211, 214, 220, 260, 270, 290

**Additional admission requirements** to those listed on pages 7 and 8 in the catalog:

1. Accounting recommended.
2. Keyboarding recommended.

**TOTAL CREDIT HOURS: 67-73**

# PARALEGAL TECHNOLOGY

A 25 38 0

A.A.S.

Evening

## CURRICULUM DESCRIPTION

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks and assisting with substantive legal work. A paralegal/legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Course work includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills, estates, trusts, and commercial law. Required courses also include subjects such as English, mathematics, and computer utilization.

Graduates are trained to assist attorneys in probate work, investigations, public records search, drafting and filing legal documents, research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies, and other business organizations.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr

### FALL - 1st Year

CIS 110	Intro to Computers	2	2	0	3
<b>OR</b>					
CIS 111	Basic PC Literacy	(1)	(2)	(0)	(2)
LEX 110	Intro to Paralegal Studies	2	0	0	2
LEX 140	Civil Litigation I	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>7</b>	<b>2</b>	<b>0</b>	<b>8</b>
		<b>(6)</b>	<b>(2)</b>	<b>(0)</b>	<b>(7)</b>

### SPRING - 1st Year

LEX 240	Family Law	3	0	0	3
MAT 115	Mathematical Models	2	2	0	3
<b>OR</b>					
MAT 140	Survey of Mathematics	2	2	0	3
OST 131	Keyboarding	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
		<b>7</b>	<b>2</b>	<b>0</b>	<b>8</b>

## SUMMER - 1st Year

ENG 111	Expository Writing	3	0	0	3
LEX 280	Ethics	2	0	0	2
-----	-----				
	Humanities/Fine Arts Elective (See your advisor.)	3	0	0	3
<b>OR</b>					
-----	-----				
	Social/Behavioral Science Elective (see your advisor)	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>

## FALL - 2nd Year

LEX 120	Legal Research and Writing I	2	2	0	3
LEX 150	Commercial Law I	2	2	0	3
OST 134	Text Entry and Formatting	<u>3</u>	<u>2</u>	<u>0</u>	<u>4</u>
		<b>7</b>	<b>6</b>	<b>0</b>	<b>10</b>

## SPRING - 2nd Year

LEX 121	Legal Research and Writing II	2	2	0	3
LEX 250	Wills, Trusts and Estates	<u>2</u>	<u>2</u>	<u>0</u>	<u>3</u>
		<b>4</b>	<b>4</b>	<b>0</b>	<b>6</b>

Select 1 additional course from LEX Electives.\*

## SUMMER - 2nd Year

ENG 114	Professional Research and Reporting	3	0	0	3
LEX 210	Real Property I	3	0	0	3
-----	-----				
	Humanities/Fine Arts Elective (See your advisor.)	3	0	0	3
<b>OR</b>					
-----	-----				
	Social/Behavioral Science Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>

## FALL - 3rd Year

ACC 120	Principles of Accounting I	3	2	0	4
LEX 130	Civil Injuries	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>6</b>	<b>2</b>	<b>0</b>	<b>7</b>

Select 1 additional course from LEX Electives.\*

*Continued on next page.*

**SPRING - 3rd Year**

COE 111	Co-op Work					
	Experience	0	0	10	1	
	<b>OR</b>					
-----	Elective	(1)	(0)	(0)	(1)	
COE 115	Work Experience	1	0	0	1	
	<b>OR</b>					
-----	Elective	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	
		<b>2</b>	<b>0</b>	<b>10</b>	<b>3</b>	
		<b>(3)</b>	<b>(0)</b>	<b>(0)</b>	<b>(3)</b>	

Select 3 additional courses from LEX  
Electives.\*

**\*LEX Electives (Hours per week vary  
depending on course selection.):** 141, 151,  
160, 211, 214, 220, 260, 270, 290

**Additional admission requirements** to those  
listed on pages 7 and 8 in the catalog:

1. Accounting recommended.
2. Keyboarding recommended.

**TOTAL CREDIT HOURS: 67-73**

## PARALEGAL TECHNOLOGY

### Personal Injury

C 25 38 0

Certificate

Day and Evening

#### CURRICULUM DESCRIPTION

The purpose of the Personal Injury certificate curriculum is to provide the fundamental skills needed as a personal injury paralegal.

After successful completion of this certificate, an individual will be able to comprehend legal issues in a personal injury case, gather and assess evidence, prepare documents, coordinate client representation, and assist in negotiations and litigation.

Employment opportunities are available in law firms and in the insurance industry.

Each course in this certificate program which is not already required in the core paralegal curriculum will also qualify as an elective in the general paralegal degree program.

#### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
	Ci	Lb	Cn	Cr

##### FALL

LEX 130 Civil Injuries	3	0	0	3
LEX 140 Civil Litigation I	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>

##### SPRING

LEX 141 Civil Litigation II	2	2	0	3
LEX 214 Investigation and Trial Preparation	1	4	0	3
LEX 290 Medical Records Analysis	<u>1</u>	<u>2</u>	<u>0</u>	<u>2</u>
	<b>4</b>	<b>8</b>	<b>0</b>	<b>8</b>

**TOTAL CREDIT HOURS: 14**



## PARALEGAL TECHNOLOGY

### Real Property

C 25 38 0

Certificate

Day and Evening

#### CURRICULUM DESCRIPTION

The purpose of the Real Property certificate curriculum is to provide the fundamental skills needed as a law firm, government, or corporate real estate paralegal.

After successful completion of this certificate, an individual will be able to search real estate title, prepare loan closing documents including HUD-1 closing settlement statements using commercially available software, and assist in residential real estate transactions.

Employment opportunities are available in lending institutions, law firms as title searchers and closing specialists, and in corporate and government offices working in real estates related matters.

Each course in this certificate program which is not already required in the core paralegal curriculum will also qualify as an elective in the paralegal degree program.

#### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week			
	Cl	Lb	Cn	Cr

##### FALL

ACC 120	Principles of Accounting I	3	2	0	4
LEX 210	Real Property I	3	0	0	3
LEX 270	Law Office Management	<u>1</u>	<u>2</u>	<u>0</u>	<u>2</u>
		<b>7</b>	<b>4</b>	<b>0</b>	<b>9</b>

##### SPRING

LEX 211	Real Property II	1	4	0	3
LEX 250	Wills, Trusts & Estates	2	2	0	3
LEX 280	Ethics	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
		<b>5</b>	<b>6</b>	<b>0</b>	<b>8</b>

**TOTAL CREDIT HOURS: 17**

# PHYSICAL THERAPIST ASSISTANT

A 55 28 0 P

A.A.S.

Day

This consortium curriculum is offered to students at Forsyth Technical Community College through an agreement with **Caldwell Community College and Technical Institute**.

## CURRICULUM DESCRIPTION

The physical therapist assistant curriculum prepares the graduate to assist the professional physical therapist in a variety of direct patient care services delegated by the supervising therapist to restore function by alleviation or prevention of physical therapy service. The graduate is eligible to take the licensing examination given by the North Carolina Board of Physical Therapy Examiners.

Suggested high school courses for individuals desiring a career as a physical therapist assist would include biology, algebra, and possibly chemistry.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

### SUMMER - 1st Year

BIO 168* Anatomy and Physiology I	3	3	0	4
ENG 111* Expository Writing	3	0	0	3
ENG 111A Expository Writing Lab	0	2	0	1
PSY 150* General Psychology	3	0	0	3
	9	5	0	11

### FALL - 1st Year

BIO 169* Anatomy and Physiology II	3	3	0	4
CIS 113* Computer Basics	0	2	0	1
COM 231* Public Speaking	3	0	0	3
ENG 112* Argument-Based Research	3	0	0	3
PHY 110* Conceptual Physics	3	0	0	3
PSY 241* Developmental Psychology	3	0	0	3
---- Humanities/ Fine Arts Elective (See your advisor.)	2	0	0	2
	17	5	0	19

### SPRING - 1st Year

PTA 110 Intro to Physical Therapy	2	3	0	3
PTA 125 Gross and Functional Anatomy	3	6	0	5
PTA 135 Pathology	4	0	0	4
	9	9	0	12

### SUMMER - 2nd Year

PTA 145 Therapeutic Procedures	2	6	0	4
PTA 212 Health Care/ Resources	2	0	0	2
PTA 222 Professional Interaction	2	0	0	2
	6	6	0	8

### FALL - 2nd Year

PTA 165 PTA Clinical I	0	0	9	3
PTA 185 PTA Clinical II	0	0	9	3
PTA 215 Therapeutic Exercise	2	3	0	3
PTA 225 Intro to Rehabilitation	3	3	0	4
	5	6	18	13

### SPRING - 2nd Year

PTA 235 Neurological Rehabilitation	3	6	0	5
PTA 245 PTA Clinical III	0	0	12	4
PTA 255 PTA Clinical IV	0	0	12	4
	3	6	24	13

\*These courses will be taught on the Forsyth Tech campus. All other courses will be taught on the Caldwell Community College and Technical Institute campus.

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Minimum grade point average of 2.75 for all general (first two semesters) courses, excluding the elective.
3. Completion of program orientation requirements which may include observational hours prior to acceptance.
4. Completion of **Forsyth Tech Student Medical Form** prior to the third semester.

*Continued on next page.*

**Program Information:**

This program has limited enrollment. Those students first to meet the admissions requirements before the admission deadline will be admitted as space allows.

Current cardiopulmonary resuscitation certification at Infant, Child and Adult (Course C) level is required prior to the third semester.

**TOTAL CREDIT HOURS: 76**

# PHYSICAL THERAPIST ASSISTANT

A 45 62 0

A.A.S

Day

This collaborative program is offered to students at Forsyth Technical Community College through the Piedmont Regional Physical Therapy Assistant curriculum. Students complete general education requirements 1st year Spring and Summer on the Forsyth Tech campus. All other courses are taught on the campus of **Guilford Technical Community College**.

## CURRICULUM DESCRIPTION

The physical therapist assistant curriculum prepares the graduate to assist the professional physical therapist in a variety of direct patient care services delegated by the supervising therapist to restore function by alleviation or prevention of physical therapy service. The graduate is eligible to take the licensing examination given by the North Carolina Board of Physical Therapy Examiners.

Suggested high school courses for individuals desiring a career as a physical therapist assist would include biology, algebra, and possibly chemistry.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

### SPRING - 1st Year

BIO 168* Anatomy and Physiology I	3	3	0	4
ENG 111* Expository Writing	3	0	0	3
PHY 110* Conceptual Physics	3	0	0	3
PHY 110A* Conceptual Physics Lab	0	2	0	1
PSY 150* General Psychology	3	0	0	3
---- Humanities/Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
	<b>15</b>	<b>5</b>	<b>0</b>	<b>17</b>

### SUMMER - 1st Year

BIO 169* Anatomy and Physiology II	3	3	0	4
COM 110* Introduction to Communication	3	0	0	3
ENG 114* Professional Research and Reporting	3	0	0	3
PSY 241* Developmental Psychology	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
	<b>12</b>	<b>3</b>	<b>0</b>	<b>13</b>

### FALL - 1st Year

PTA 110 Intro to Physical Therapy	2	3	0	3
PTA 125 Gross and Functional Anatomy	3	6	0	5
PTA 135 Pathology	4	0	0	4
PTA 222 Professional Interactions	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
	<b>11</b>	<b>9</b>	<b>0</b>	<b>14</b>

### SPRING - 2nd Year

PTA 145 Therapeutic Procedures	2	6	0	4
PTA 155 PTA Clinical I	0	0	6	2
PTA 185 PTA Clinical II	0	0	0	3
PTA 215 Therapeutic Exercise	<u>2</u>	<u>3</u>	<u>0</u>	<u>3</u>
	<b>4</b>	<b>9</b>	<b>6</b>	<b>12</b>

### SUMMER - 2nd Year

PTA 225 Intro to Rehab	3	3	0	4
PTA 245 PTA Clinical III	<u>0</u>	<u>0</u>	<u>12</u>	<u>4</u>
	<b>3</b>	<b>3</b>	<b>12</b>	<b>8</b>

### FALL - 2nd Year

PTA 212 Health Care/Resources	2	0	0	2
PTA 235 Neurological Rehab	3	6	0	5
PTA 255 PTA Clinical IV	<u>0</u>	<u>0</u>	<u>12</u>	<u>4</u>
	<b>5</b>	<b>6</b>	<b>12</b>	<b>11</b>

\* These courses can be taken on the Forsyth Tech campus. All other courses are taught on the Guilford Technical Community College campus.

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. College English or algebra courses with a grade of C or higher within the past ten years may waive some required placement tests. High school algebra I or higher with a grade of C or higher taken within the past five years may be substituted for the algebra placement test.
2. Completion of high school or college credits in biology, chemistry and algebra. Biology competency must be demonstrated by two courses with a grade of C or higher. The Admissions Office will determine if this requirement

*Continued on next page.*



has been met.

3. Grades of C or higher are required for general education courses completed prior to program admission and enrollment in PTA Course work at Guilford Tech.
4. Completion of the PSB - Health Occupations Aptitude Examination - Revised.
4. It is highly recommended that applicants complete a Physical Therapy Assistant Related Experience prior to the application deadline. See admissions for more information.
6. Completion of program orientation requirements.
7. Overall grade point average of 2.0 on those courses completed at Forsyth Tech which are listed as program course requirements.
8. Completion of the **Forsyth Tech Student Medical Form.**

#### **Program Information:**

This program has limited enrollment and selects students for admission. When minimum requirements are met, applicants are ranked using a point system based on grades, standardized testing (PSB), and amount of physical therapy assistant related experience. The top ranking applicants will be admitted based on space availability.

A grade of C or higher is required in all PTA courses or the student will be suspended from the program.

Guilford Tech requires demonstrated math and computer competency prior to graduation.

Guilford Tech is seeking accreditation by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

**TOTAL CREDIT HOURS: 75**

# **D 35 30 0** **PLUMBING** **Diploma**

**Day**

## **CURRICULUM DESCRIPTION**

The Plumbing curriculum is designed to give individuals the opportunity to acquire basic skills to assist with the installation and repairs of plumbing systems in residential and small buildings.

Course work includes sketching diagrams, interpretation of blueprints and practices in plumbing assembly. Students will gain knowledge of State Codes and requirements. Students will develop skills through hands-on participation during lab and at job sites. Students are responsible for their own transportation to and from job sites.

Graduates should qualify for employment at parts supply houses, maintenance companies, and plumbing contractors to assist with various plumbing applications.

## **CURRICULUM BY SEMESTERS**

Course Title	Hours Per Week		
	Cl	Lb	Cr

### **FALL**

BPR 130 Blueprint Reading/Const.	1	2	2
MAT 101 Applied Mathematics I	2	2	3
PLU 110 Modern Plumbing	4	15	9
PLU 140 Intro to Plumbing Codes	<u>1</u>	<u>2</u>	<u>2</u>
	<b>8</b>	<b>21</b>	<b>16</b>

### **SPRING**

PLU 120 Plumbing Applications	4	15	9
PLU 150 Plumbing Diagrams	1	2	2
WLD 112 Basic Welding Processes	<u>1</u>	<u>3</u>	<u>2</u>
	<b>6</b>	<b>20</b>	<b>13</b>

### **SUMMER**

ENG 101 Applied Communications I	3	0	3
PLU 130 Plumbing Systems	<u>3</u>	<u>9</u>	<u>6</u>
	<b>6</b>	<b>9</b>	<b>9</b>

**TOTAL CREDIT HOURS: 38**

**C 35 30 0**

**PLUMBING  
Certificate**

**Day**

**CURRICULUM DESCRIPTION**

The Plumbing curriculum is designed to give individuals the opportunity to acquire basic skills to assist with the installation and repairs of plumbing systems in residential and small buildings.

Course work includes sketching diagrams, interpretation of blueprints and practices in plumbing assembly. Students will gain knowledge of State Codes and requirements. Students will develop skills through hands-on participation during lab and at job sites. Students are responsible for their own transportation to and from job sites.

Graduates should qualify for employment at parts supply houses, maintenance companies, and plumbing contractors to assist with various plumbing applications.

**CURRICULUM BY SEMESTERS**

Course Title	Hours Per Week		
	Cl	Lb	Cr

**FALL**

PLU 110 Modern Plumbing	4	15	2
	4	15	9

**SPRING**

PLU 120 Plumbing Applications	4	15	2
	4	15	9

**TOTAL CREDIT HOURS: 18**

# PRACTICAL NURSING

D 45 66 0

Diploma

Day

## CURRICULUM DESCRIPTION

The Practical Nursing curriculum prepares individuals with the knowledge and skills to provide nursing care to children and adults.

Students will participate in assessment, planning, implementing, and evaluating nursing care.

Graduates are eligible to apply to take the National Council Licensure Examination (NCLEX-PN) which is required for practice as a Licensed Practical Nurse. Employment opportunities include hospitals, rehabilitation/long term care/home health facilities, clinics, and physicians' offices.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

### FALL ADMISSION

#### FALL

ACA 111	College Student Success	1	0	0	1
BIO 163	Basic Anatomy and Physiology	4	2	0	5
NUR 101	Practical Nursing I	7	6	6	11
PSY 150	General Psychology	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		15	8	6	20

### SPRING

ENG 111	Expository Writing	3	0	0	3
NUR 102	Practical Nursing II	<u>8</u>	<u>0</u>	<u>12</u>	<u>12</u>
		11	0	12	15

### SUMMER

NUR 103	Practical Nursing III	<u>6</u>	<u>0</u>	<u>12</u>	<u>10</u>
		6	0	12	10

**SPRING ADMISSION** - When a Spring PN admission occurs the following curriculum by semesters is outlined.

### SPRING

ACA 111	College Student Success	1	0	0	1
BIO 163	Basic Anatomy and Physiology	4	2	0	5
NUR 101	Practical Nursing I	7	6	6	11
PSY 150	General Psychology	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		15	8	6	20

## SUMMER

NUR 102	Practical Nursing II	8	0	12	12
		8	0	12	12

**NOTE:** The total contact hours for Summer Term will be approximately 30 hours per week due to the shortened Summer Term.

## FALL

ENG 111	Expository Writing	3	0	0	3
NUR 103	Practical Nursing III	<u>6</u>	<u>0</u>	<u>12</u>	<u>10</u>
		9	0	12	13

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
3. Completion of program orientation requirements.
4. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
5. Completion of the **Forsyth Tech Student Medical Form**.

## Program Information:

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. A grade of C or better is required in all NUR courses or the student will be dismissed. Readmission may be possible but requires reapplication and approval by the College.

**TOTAL CREDIT HOURS: 45**



# RADIATION THERAPY TECHNOLOGY

**A 45 68 0**

**A.A.S.**

**Day**

## CURRICULUM DESCRIPTION

The Radiation Therapy Technology curriculum is designed to train students to work in conjunction with nurses, physicists, and physicians in the application of prescribed doses of ionizing radiation for the treatment of disease, primarily cancer.

Course work includes physics, anatomy and physiology, dosimetry, and clinical oncology. The student will be skilled in treatment management, administration of prescribed radiation treatment, and provision of patient support.

Graduates may be eligible to sit for the National Radiation Therapy Exam, given by the American Registry of Radiologic Technologists. Employment opportunities can be found in hospitals and freestanding cancer centers.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week				
		Cl	Lb	Cn	Cr

### FALL - 1st Year

BIO 163	Basic Anatomy and Physiology	4	2	0	5
RAD 110	Rad Intro and Patient Care	2	3	0	3
RAD 111	RAD Procedures I	3	3	0	4
RAD 151	RAD Clinical Ed I	<u>0</u>	<u>0</u>	<u>6</u>	<u>2</u>
		<b>9</b>	<b>8</b>	<b>6</b>	<b>14</b>

### SPRING - 1st Year

ENG 115	Oral Communication	3	0	0	3
----	Humanities/ Fine Arts Elective (See your advisor.)	3	0	0	3
PSY 150	General Psychology	3	0	0	3
RAD 121	Radiographic Imaging I	2	3	0	3
RTT 151	RTT Clinical Ed II	<u>0</u>	<u>0</u>	<u>2</u>	<u>3</u>
		<b>11</b>	<b>3</b>	<b>9</b>	<b>15</b>

### SUMMER - 1st Year

ENG 111	Expository Writing	3	0	0	3
RTT 121	Special Imaging	2	0	0	2
RTT 161	RTT Clinical Ed III	<u>0</u>	<u>0</u>	<u>6</u>	<u>2</u>
		<b>5</b>	<b>0</b>	<b>6</b>	<b>7</b>

### FALL - 2nd Year

RTT 210	Radiobiology	2	0	0	2
RTT 220	Rad Therapy Orientation	2	0	0	2
RTT 221	Clinical Oncology I	2	0	0	2
RTT 230	Radiation Therapy Physics	3	0	0	3
RTT 238	RTT Clinical Ed IV	<u>0</u>	<u>2</u>	<u>15</u>	<u>6</u>
		<b>9</b>	<b>2</b>	<b>15</b>	<b>15</b>

### SPRING - 2nd Year

BIO 271	Pathophysiology	3	0	0	3
RTT 222	Clinical Oncology II	2	0	0	2
RTT 231	Dosimetry	3	0	0	3
RTT 239	RTT Clinical Ed V	<u>0</u>	<u>2</u>	<u>18</u>	<u>7</u>
		<b>8</b>	<b>2</b>	<b>18</b>	<b>15</b>

### SUMMER - 2nd Year

ACA 220	Professional Transition	1	0	0	1
RTT 232	Rad Therapy Procedures	2	0	0	2
RTT 246	RTT Clinical Ed VI	<u>0</u>	<u>0</u>	<u>18</u>	<u>6</u>
		<b>3</b>	<b>0</b>	<b>18</b>	<b>9</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Written recommendations completed on the college approved form.
3. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
4. Completion of program orientation requirements which may include observational hours prior to acceptance.
5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
6. Completion of the **Forsyth Tech Student Medical Form**.

### Program Information:

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant

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I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, RAD or RTT course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

**TOTAL CREDIT HOURS: 75**

# RADIATION THERAPY TECHNOLOGY

## Advanced Placement

**A 45 68 0**

**A.A.S.**

**Day**

### CURRICULUM DESCRIPTION

The Radiation Therapy Technology curriculum is designed to train students to work in conjunction with nurses, physicists, and physicians in the application of prescribed doses of ionizing radiation for the treatment of disease, primarily cancer.

Course work includes physics, anatomy and physiology, dosimetry, and clinical oncology. The student will be skilled in treatment management, administration of prescribed radiation treatment, and provision of patient support.

Graduates may be eligible to sit for the National Radiation Therapy Exam, given by the American Registry of Radiologic Technologists. Employment opportunities can be found in hospitals and freestanding cancer centers.

**Advanced placement into the Radiation Therapy Technology program is available to graduates of radiography programs accredited by the Joint Review Committee on Education in Radiologic Technology. Individuals from these programs must have equivalent college transfer credit or complete the necessary general education course work required for the degree. These courses include:**

		Hours
BIO 163	Basic Anatomy and Physiology	5
BIO 271	Pathophysiology	3
ENG 111	Expository Writing	3
ENG 115	Oral Communication	3
PSY 150	General Psychology	3
----	Humanities/Fine Arts	
	Elective (see your advisor)	5

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week				
		Cl	Lb	Cn	Cr
<b>FALL - 2nd Year</b>					
RTT 210 Radiobiology	2	0	0	0	2
RTT 220 Rad Therapy Orientation	2	0	0	0	2
RTT 221 Clinical Oncology I	2	0	0	0	2
RTT 230 Radiation Therapy Physics	3	0	0	0	3
RTT 238 RTT Clinical Ed IV	0	2	15	6	
	9	2	15	15	

### SPRING - 2nd Year

BIO 271	Pathophysiology	3	0	0	3
RTT 222	Clinical Oncology II	2	0	0	2
RTT 231	Dosimetry	3	0	0	3
RTT 239	RTT Clinical Ed V	0	2	18	7
		8	2	18	15

### SUMMER - 2nd Year

RTT 232	Rad Therapy Procedures	2	0	0	2
RTT 246	RTT Clinical Ed VI	0	0	18	6
		2	0	18	8

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Written recommendations completed on the college approved form.
3. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
4. Completion of program orientation requirements which may include observational hours prior to acceptance.
5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
6. Completion of the **Forsyth Tech Student Medical Form**.

### Program Information:

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, RTT course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and

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approval by the College.

**TOTAL HOURS:** Hours will vary depending on the general education courses completed prior to enrollment.



# RADIOGRAPHY

**A 45 70 0**

**A.A.S.**

**Day**

## CURRICULUM DESCRIPTION

The Radiography curriculum prepares the graduate to be a radiographer, a skilled health care professional who uses radiation to produce images of the human body.

Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation protection, quality assurance, anatomy and physiology, and radiobiology.

Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as medical radiographer. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies, and industry.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	CI Lb Cn Cr

### FALL - 1st Year

BIO 163 Basic Anatomy and Physiology	4 2 0 5
ENG 111 Expository Writing	3 0 0 3
RAD 110 Rad Intro and Patient Care	2 3 0 3
RAD 111 RAD Procedures I	3 3 0 4
RAD 151 RAD Clinical Ed I	<u>0</u> <u>0</u> <u>6</u> <u>2</u>
	<b>12 8 6 17</b>

### SPRING - 1st Year

---- Humanities/ Fine Arts Elective (See your advisor.)	3 0 0 3
PSY 150 General Psychology	3 0 0 3
RAD 112 RAD Procedures II	3 3 0 4
RAD 121 Radiographic Imaging I	2 3 0 3
RAD 161 RAD Clinical Ed II	<u>0</u> <u>0</u> <u>15</u> <u>5</u>
	<b>11 6 15 18</b>

## SUMMER - 1st Year

ENG 112 Argument-Based Research	3 0 0 3
<b>OR</b>	
ENG 113 Literature-Based Research	3 0 0 3
<b>OR</b>	
ENG 114 Professional Research and Reporting	3 0 0 3
RAD 122 Radiographic Imaging II	1 3 0 2
RAD 131 Radiographic Physics I	1 3 0 2
RAD 171 RAD Clinical Ed III	<u>0</u> <u>0</u> <u>12</u> <u>4</u>
	<b>5 6 12 11</b>

## FALL - 2nd Year

RAD 211 RAD Procedures III	2 3 0 3
RAD 231 Radiographic Physics II	1 3 0 2
RAD 241 Radiation Protection	2 0 0 2
RAD 251 RAD Clinical Ed IV	0 0 21 7
SOC 210 Introduction to Sociology	<u>3</u> <u>0</u> <u>0</u> <u>3</u>
	<b>8 6 21 17</b>

## SPRING - 2nd Year

ACA 220 Professional Transition 1	0 0 1
RAD 245 Radiographic Analysis 2	3 0 3
RAD 261 RAD Clinical Ed V	0 0 21 7
RAD 282 RAD Clinical Elective	<u>0</u> <u>0</u> <u>6</u> <u>2</u>
	<b>3 3 27 13</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Written recommendations completed on the college approved form.
3. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
4. Completion of program orientation requirements which may include observational hours prior to acceptance.
5. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
6. Completion of the **Forsyth Tech Student Medical Form**.

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**Program Information:**

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, RAD course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

Radiography is considered to be a safe profession in terms of radiation exposure; however, special limits have been established for occupationally exposed declared pregnant women to insure that the probability of birth defects is negligible. A copy of the program's pregnancy policy is included in the Radiography Program Student Handbook and is available to anyone upon request.

**TOTAL CREDIT HOURS: 76**

**REAL ESTATE**  
**C 25 40 0**      **Certificate**

**Day and Evening**

**Pending NC Real Estate Commission**  
**changes in curriculum due to take effect on**  
**October 1, 2000.**

**CURRICULUM DESCRIPTION**

The Real Estate curriculum provides the prelicensing education required by the North Carolina Real Estate Commission, prepares individuals to enter the profession, and offers additional education to meet professional development needs.

Course work includes the practices and principles of real estate, emphasizing financial and legal applications, property development, and property values.

Graduates should qualify for North Carolina Real Estate Sales and Broker examinations. They should be able to enter apprenticeship training and to provide real estate services to consumers in a competent manner.

**CURRICULUM BY SEMESTERS**

Course Title	Hours Per Week		
	Cl	Lb	Cr

**FALL**

RLS 112 Real Estate Fundamentals	4	0	4
RLS 113 Real Estate Mathematics	2	0	2
	<b>6</b>	<b>0</b>	<b>6</b>

**SPRING**

RLS 114 Real Estate Brokerage	2	0	2
RLS 115 Real Estate Finance	2	0	2
	<b>4</b>	<b>0</b>	<b>4</b>

**SUMMER**

CIS 111 Basic PC Literacy	2	0	2
RLS 116 Real Estate Law	1	2	2
	<b>3</b>	<b>2</b>	<b>4</b>

**TOTAL CREDIT HOURS: 14**

**REAL ESTATE APPRAISAL**  
**C 25 42 0                      Certificate**

**Evening**

**CURRICULUM DESCRIPTION**

The Real Estate Appraisal curriculum is designed to prepare individuals to enter the appraisal profession as a registered trainee and advance to licensed or certified appraiser levels.

Course work includes appraisal theory and concepts with applications, the North Carolina Appraisers Act, North Carolina Appraisal Board rules, and the Uniform Standards of Professional Appraisal Practice.

Graduates should be prepared to complete the North Carolina Registered Trainee Examinations and advance to licensure or certification levels as requirements are met.

**CURRICULUM BY SEMESTERS**

Course Title	Hours Per Week		
	Cl	Lb	Cr

**FALL**

REA 101 Intro. to Real Estate Appraisal R-1	2	0	2
REA 201 Intro. to Income Property Appraisal G-1	<u>2</u>	<u>0</u>	<u>2</u>
	<b>4</b>	<b>0</b>	<b>4</b>

**SPRING**

REA 102 Valuation Principles and Practice R-2	2	0	2
REA 202 Adv. Income Capital Proc. G-2	<u>2</u>	<u>0</u>	<u>2</u>
	<b>4</b>	<b>0</b>	<b>4</b>

**SUMMER**

REA 103 Applied Residential Prop. Val. R-3	2	0	2
REA 203 Applied Income Property Val. G-3	<u>2</u>	<u>0</u>	<u>2</u>
	<b>4</b>	<b>0</b>	<b>4</b>

**TOTAL CREDIT HOURS: 12**



# RECREATIONAL VEHICLE MAINTENANCE AND REPAIR

D 60 31 0

Diploma

Day and Evening\*

## CURRICULUM DESCRIPTION

This curriculum is designed to prepare individuals to work as Recreational Vehicle Maintenance Technicians.

Course work include electrical, air conditioning, water, heating, mechanical, and LP gas systems and appliances on all types of recreational vehicles. Students will develop skills through classroom and shop/lab activities.

Graduates should qualify for employment as entry level recreational vehicle service technicians, service writers, parts counter persons, service managers, factory field technicians, or factory service representatives.

## \* Program Information:

Completion of this curriculum will require taking both day and evening courses.

**TOTAL CREDIT HOURS: 36**

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

MAT 101 Applied Mathematics I	2	2	3
RVM110 Introduction to RV	2	0	2
RVM112 RV Preventive Maintenance	1	2	2
RVM115 Predelivery Inspection	1	2	2
RVM125 RV Electrical Systems	2	6	4
RVM130 LP Gas Systems/Appliances	<u>1</u>	<u>2</u>	<u>2</u>
	<b>9</b>	<b>14</b>	<b>15</b>

### SPRING

ENG 101 Applied Communications I	3	0	3
MKT223 Customer Service	3	0	3
RVM140 Brake, Towing/Suspensions	1	2	1
RVM150 Air Conditioning Systems	1	2	2
RVM160 RV Water Systems	2	4	4
RVM170 RV Fluid Power	<u>1</u>	<u>2</u>	<u>2</u>
	<b>11</b>	<b>10</b>	<b>15</b>

### SUMMER

RVM180 Heating/Mechanical System	1	3	2
RVM190 Interior/Exterior Coach	<u>2</u>	<u>4</u>	<u>4</u>
	<b>3</b>	<b>7</b>	<b>6</b>

# RECREATIONAL VEHICLE MAINTENANCE AND REPAIR

C 60 31 0

Certificate

Day and Evening\*

## CURRICULUM DESCRIPTION

This curriculum is designed to prepare individuals to work as Recreational Vehicle Maintenance Technicians.

Course work include electrical, air conditioning, water, heating, mechanical, and LP gas systems and appliances on all types of recreational vehicles. Students will develop skills through classroom and shop/lab activities.

Graduates should qualify for employment as entry level recreational vehicle service technicians, service writers, parts counter persons, service managers, factory field technicians, or factory service representatives.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

RVM125 RV Electrical Systems	2	6	4
RVM130 LP Gas Systems/Appliances	<u>1</u>	<u>2</u>	<u>2</u>
	<b>3</b>	<b>8</b>	<b>6</b>

### SPRING

RVM150 Air Conditioning Systems	1	2	2
RVM160 RV Water Systems	<u>2</u>	<u>4</u>	<u>4</u>
	<b>3</b>	<b>6</b>	<b>6</b>

### SUMMER

RVM180 Heating/Mechanical Systems	1	3	2
RVM190 Interior/Exterior Coach	<u>2</u>	<u>4</u>	<u>4</u>
	<b>3</b>	<b>7</b>	<b>6</b>

### \* Program Information:

Completion of this curriculum will require taking both day and evening courses.

**TOTAL CREDIT HOURS: 18**

## RESPIRATORY CARE

**A 45 72 0**

**A.A.S.**

**Day**

### CURRICULUM DESCRIPTION

The Respiratory Care curriculum prepares individuals to function as Respiratory Therapists. In these roles, individuals perform diagnostic testing, treatments, and management of patients with heart and lung diseases.

Students will master skills in patient assessment and treatment of cardiopulmonary diseases. These skills include life support, monitoring, drug administration, and treatment of patients of all ages in a variety of settings.

Graduates of accredited programs will be eligible to take the entry-level examination (Certified Respiratory Therapist - CRT) from the National Board for Respiratory Care. \*Advanced-level practitioner graduates may also take the Advanced Practitioner Examination (Registered Respiratory Therapist - RRT). Graduates may be employed in hospitals, clinics, nursing homes, education, industry, and home care.

\*Forsyth Tech offers the Advanced-level practitioner program.

### CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

#### FALL - 1st Year

BIO 163	Basic Anatomy and Physiology	4	2	0	5
ENG 111	Expository Writing	3	0	0	3
RCP 110	Intro to Respiratory Care	3	3	0	4
RCP 122	Special Practice Lab	0	2	0	1
RCP 132	RCP Clinical Practice I	0	0	6	2
		10	7	6	15

#### SPRING - 1st Year

RCP 111	Therapeutics/Diagnostics	4	3	0	5
RCP 113	RCP Pharmacology	2	0	0	2
RCP 114	C-P Anatomy and Physiology	3	0	0	3
RCP 123	Special Practice Lab	0	3	0	1
RCP 145	RCP Clinical Practice II	0	0	15	5
		9	6	15	16

#### SUMMER - 1st Year

RCP 112	Patient Management	3	3	0	4
RCP 115	C-P Pathophysiology	2	0	0	2
RCP 153	RCP Clinical Practice III	0	0	9	3
RCP 223	Special Practice Lab	0	3	0	1
		5	6	9	10

#### FALL - 2nd Year

PSY 150	General Psychology	3	0	0	3
RCP 210	Critical Care Concepts	3	3	0	4
RCP 214	Neo/Ped's RC	1	3	0	2
RCP 236	RCP Clinical Practice IV	0	0	18	6
----	----* Humanities/ Fine Arts Elective	3	0	0	3
		10	6	18	18

#### SPRING - 2nd Year

ENG 112	Argument-Based Research	3	0	0	3
	<b>OR</b>				
ENG 113	Literature-Based Research	3	0	0	3
	<b>OR</b>				
ENG 114	Professional Research and Reporting	3	0	0	3
RCP 211	Adv Monitoring/Procedures	3	3	0	4
RCP 215	Career Prep - Adv Level	0	3	0	1
RCP 247	RCP Clinical Practice V	0	0	21	7
		6	6	21	15

#### \* Humanities/ Fine Arts Electives

ART 111	Art Appreciation
MUS 110	Music Appreciation
PHI 215	Philosophical Issues
PHI 240	Intro to Ethics
SPA 111	Elementary Spanish I

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Current cardiopulmonary resuscitation certification at the Health Care Provider level.
3. Completion of program orientation requirements which include clinical

*Continued on next page.*

- observational hours prior to acceptance.
4. Overall grade point average of 2.0 on those courses completed at Forsyth Tech which are listed as program course requirements.
  5. Completion of the **Forsyth Tech Student Medical Form**.

**Program Information:**

This program has limited enrollment. Students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, RCP prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

Successful completion of an Advanced Cardiac Life Support (ACLS) and Neonatal Resuscitation (NRP) provider course is a requirement for graduation from the program.

**TOTAL CREDIT HOURS: 74**



# SPEECH/LANGUAGE PATHOLOGY ASSISTANT

A 45 73 0

A.A.S.

Day

## CURRICULUM DESCRIPTION

The Speech-Language Pathology Assistant curriculum prepares graduates to work under the supervision of a licensed Speech-Language Pathologist, who evaluates, and treats individuals with various communication disorders.

Courses provide instruction in methods of screening for speech, language, and hearing disorders and in following written protocols designed to remediate individual communication problems. Supervised field experiences include working with patients of various ages and with various disorders.

Graduates may be eligible for registration with the North Carolina Board of Examiners of Speech-Language Pathologists and Audiologists and must be supervised by a licensed Speech-Language Pathologist. They may be employed in healthcare or education settings.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week				
	Cl	Lb	Cn	Cr	

### FALL - 1st Year

BIO 163	Basic Anatomy and Physiology	4	2	0	5
CIS 111	Basic PC Literacy	1	2	0	2
ENG 115	Oral Communications	3	0	0	3
MAT 115	Mathematical Models	2	2	0	3
PSY 150	General Psychology	3	0	0	3
SLP 111	Intro to Speech-Language Path	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>16</b>	<b>6</b>	<b>0</b>	<b>19</b>

### SPRING - 1st Year

ENG 111	Expository Writing	3	0	0	3
PSY 265	Behavioral Modification	3	0	0	3
SLP 112	SLP Anatomy and Physiology	3	0	0	3
SLP 140	Normal Communication	3	0	0	3
----	Humanities/ Fine Arts Elective (See your advisor.)	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>15</b>	<b>0</b>	<b>0</b>	<b>15</b>

### SUMMER - 1st Year

PSY 241	Developmental Psychology	3	0	0	3
SLP 130	Phonetics/Speech Patterns	2	2	0	3
SLP 211	Disorders and Treatment I	<u>3</u>	<u>2</u>	<u>0</u>	<u>4</u>
		<b>8</b>	<b>4</b>	<b>0</b>	<b>10</b>

### FALL - 2nd Year

ENG 112	Argument-Based Research	3	0	0	3
<b>OR</b>					
ENG 113	Literature-Based Research	3	0	0	3
<b>OR</b>					
ENG 114	Professional Research and Reporting	3	0	0	3
PSY 255	Intro to Exceptionality	3	0	0	3
SLP 120	SLP Admin Office Pro	2	0	0	2
SLP 212	Disorders and Treatment II	3	2	3	5
SLP 220	Assistive Technology	<u>1</u>	<u>2</u>	<u>0</u>	<u>2</u>
		<b>12</b>	<b>4</b>	<b>3</b>	<b>15</b>

### SPRING - 2nd Year

SLP 230	SLP Fieldwork	0	0	12	4
SLP 231	SLP Fieldwork Seminar	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
		<b>3</b>	<b>0</b>	<b>12</b>	<b>7</b>

**Additional admission requirements** to those listed on pages 7 and 8 in the College Catalog:

1. Completion of high school or college credits in biology, chemistry and algebra.
2. Written recommendations completed on the college approved form.
3. Completion of program orientation requirements which may include observational hours prior to acceptance.
4. Overall grade point average of 2.0 on those courses completed at Forsyth Tech and listed as program course requirements.
5. Completion of the **Forsyth Tech Student Medical Form**.

### Program Information:

This program has limited enrollment.

*Continued on next page.*

Effective for Fall 2000 admissions, students are chosen by a selective admissions process based on placement test scores; previous grades from high school or college courses to include biology, written communication, and algebra; and completion of any training such as certified nurse assistant I and II, health care technician, EMT, paramedic, or any 1, 2, or 3 year health technologies or nursing program. The admissions office can provide additional information on the selection process.

A grade of F or any withdrawal in any required science course, SLP prefix course, or prerequisite course while enrolled in the program will result in dismissal of the student from the curriculum. Readmission may be possible but requires reapplication and approval by the College.

Applicants with a Bachelors Degree should contact the Speech/Language Pathology Assistant program faculty to determine course requirements for registration with the North Carolina Board of Examiners for Speech and Language Pathologists and Audiologists.

**TOTAL CREDIT HOURS: 66**

# THERAPEUTIC MASSAGE

**A 45 75 0**

**A.A.S.**

**Day**

**Pending State Board approval**, this curriculum will be offered as a Forsyth Technical Community College curriculum beginning Fall 2000.

## CURRICULUM DESCRIPTION

The Therapeutic Massage curriculum prepares graduates to work in direct client care settings to provide manipulation, methodical pressure, friction and kneading of the body for maintaining wellness or treating alterations in wellness throughout the lifespan.

Courses will include content in normal human anatomy and physiology, therapeutic massage, ethical/legal issues, business practices, nutrition and psychology.

Employment opportunities may be found in hospitals, rehabilitation centers, health departments, home health, medical offices, nursing homes, spas, health and sports clubs, and private practice. Graduates may be eligible to take the National Certification for Therapeutic Massage and Bodywork.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week
	Cl Lb Cn Cr

### FALL - 1st Year

BIO 163 Basic Anatomy & Physiology	4	2	0	5
ENG 111 Expository Writing	3	0	0	3
MED 121 Medical Terminology	3	0	0	3
MTH 110 Massage Therapy I	6	12	0	10
	16	14	0	21

### SPRING - 1st Year

BIO 271 Pathophysiology	3	0	0	3
MTH 120 Massage Therapy II	6	12	0	10
NUT 110 Nutrition	3	0	0	3
PSY 118 Interpersonal Psy.	3	0	0	3
	15	12	0	19

### FALL - 2nd Year

ENG 114 Professional Research and Reporting	3	0	0	3
MAT 115 Mathematical Models	3	0	0	3
<b>OR</b>				
MAT 140 Survey of Mathematics	3	0	0	3
MTH 125 Massage Therapy III	2	0	0	2
MTH 210 Massage Therapy IV	4	12	0	8
----- Social Science Elective*	3	0	0	3
	15	12	0	19

### SPRING - 2nd Year

BUS 137 Principles of Management	3	0	0	3
<b>OR</b>				
BUS 230 Small Business Management	3	0	0	3
COE 111 Co-op Work Experience	0	0	10	1
MTH 220 Massage Therapy V	4	10	0	7
----- Free Elective**	3	0	0	3
----- Humanities/Fine Arts Elective***	3	0	0	3
	13	10	10	17

**\*Social Science Electives** - Choose one.

PSY 150

SOC 210

**\*\*Free Electives** - Choose one.

CIS 110 or 111

**\*\*\*Humanities/Fine Arts Electives** - Choose one.

ART 111

COM 110

MUS 110

**TOTAL CREDIT HOURS: 76**

# WELDING TECHNOLOGY

D 50 42 0

Diploma

Day

## CURRICULUM DESCRIPTION

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL

MAT 101 Applied Mathematics I	2	2	3
MEC 111 Machine Processes I	2	3	3
WLD 110 Cutting Processes	1	3	2
WLD 121 GMAW (Mig)			
FCAW/Plate	<u>2</u>	<u>6</u>	<u>4</u>
	<b>7</b>	<b>14</b>	<b>12</b>

### SPRING

ENG 101 Applied Communications I	3	0	3
WLD 115 SMAW (Stick) Plate	2	9	5
WLD 131 GTAW (Tig) Plate	2	6	4
WLD 143 Welding Metallurgy	<u>1</u>	<u>2</u>	<u>2</u>
	<b>8</b>	<b>17</b>	<b>14</b>

### SUMMER

WLD 116 SMAW (Stick)			
Plate/Pipe	1	9	4
WLD 141 Symbols & Specifications	2	2	3
WLD 145 Thermoplastic Welding	1	3	2
WLD 261 Certification Practices	<u>1</u>	<u>3</u>	<u>2</u>
	<b>5</b>	<b>17</b>	<b>11</b>

**TOTAL CREDIT HOURS: 37**



# WELDING TECHNOLOGY

**D 50 42 0**

**Diploma**

**Evening**

## CURRICULUM DESCRIPTION

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

## SUMMER - 2nd Year

WLD 145 Thermoplastic Welding	1	3	2
WLD 261 Certification Practices	<u>1</u>	<u>3</u>	<u>2</u>
	2	6	4

**TOTAL CREDIT HOURS: 37**

## CURRICULUM BY SEMESTERS

Course Title	Hours Per Week		
	Cl	Lb	Cr

### FALL - 1st Year

WLD 121 GMAW (MIG)			
FCNW/Plate	<u>2</u>	<u>6</u>	<u>4</u>
	2	6	4

### SPRING - 1st Year

MAT 101 Applied Mathematics I	2	2	3
MEC 111 Machine Processes I	2	3	3
WLD 110 Cutting Processes	<u>1</u>	<u>3</u>	<u>2</u>
	5	8	8

### SUMMER - 1st Year

WLD 131 GTAW (TIG) Plate	2	6	4
WLD 143 Welding Metallurgy	<u>1</u>	<u>2</u>	<u>2</u>
	3	8	6

### FALL - 2nd Year

ENG 101 Applied Communications I	3	0	3
WLD 115 SMAW (Stick) Plate	<u>2</u>	<u>9</u>	<u>5</u>
	5	9	8

### SPRING - 2nd Year

WLD 116 SMAW (Stick) Plate/Pipe	1	9	4
WLD 141 Symbols and Specifications	<u>2</u>	<u>2</u>	<u>3</u>
	3	11	7

**WELDING**  
**Certificate**

**C 50 42 0**

**Day**

**CURRICULUM DESCRIPTION:**

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

**CURRICULUM BY SEMESTERS**

Course Title	Hours Per Week
	Cl Lb Cr

**FALL**

WLD 110 Cutting Processes	1   3   2
WLD 121 GMAW (Mig)	
FCAW/Plate	<u>2</u> <u>6</u> <u>4</u>
	<b>3   9   6</b>

**SPRING**

WLD 115 SMAW (Stick) Plate	2   9   5
WLD 131 GTAW (Tig) Plate	<u>2</u> <u>6</u> <u>4</u>
	<b>4   15   9</b>

**SUMMER**

WLD 141 Symbols and	
Specifications	<u>2</u> <u>2</u> <u>3</u>
	<b>2   2   3</b>

**TOTAL CREDIT HOURS: 18**

**CURRICULUM DESCRIPTION:**

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

**CURRICULUM BY SEMESTERS**

Course Title	Hours Per Week		
	Cl	Lb	Cr

**FALL - 1st Year**

WLD 121 GMAW (Mig)			
FCAW/Plate	<u>2</u>	<u>6</u>	<u>4</u>
	2	6	4

**SPRING - 1st Year**

WLD 110 Cutting Processes	<u>1</u>	<u>3</u>	<u>2</u>
	1	3	2

**SUMMER - 1st Year**

WLD 131 GTAW (Tig) Plate	<u>2</u>	<u>6</u>	<u>4</u>
	2	6	4

**FALL - 2nd Year**

WLD 115 SMAW (Stick) Plate	<u>2</u>	<u>9</u>	<u>5</u>
	2	9	5

**SPRING - 2nd Year**

WLD 141 Symbols and			
Specifications	<u>2</u>	<u>2</u>	<u>3</u>
	2	2	3

**TOTAL CREDIT HOURS: 18**

# Course Descriptions

The \* beside a course number indicates that the course has been approved for the General Education core for transfer through the Comprehensive Articulation Agreement.

The \*\* beside a course number indicates that the course is taught at another community college through a consortium agreement. This course will not be taught at Forsyth Tech.





## ACADEMIC RELATED

### ACA 111 College Student Success 1 0 1

Prerequisites: BIO 094 or 163 Corequisites:None

This course introduces the college's physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

### ACA 118 College Study Skills 1 2 2

Prerequisites: None Corequisites:None

This course covers skills and strategies designed to improve study behaviors. Topics include time management, note taking, test taking, memory techniques, active reading strategies, critical thinking, communication skills, learning styles, and other strategies for effective learning. Upon completion, students should be able to apply appropriate study strategies and techniques to the development of an effective study plan.

### ACA 220 Professional Transition 1 0 1

Prerequisites: None Corequisites:None

This course provides preparation for meeting the demands of employment or education beyond the community college experience. Emphasis is placed on strategic planning, gathering information on workplaces or colleges, and developing human interaction skills for professional, academic, and/or community life. Upon completion, students should be able to successfully make the transition to appropriate workplaces or senior institutions.

## ACCOUNTING

### ACC 111 Financial Accounting 3 0 3

Prerequisites: None Corequisites:None

This course introduces the basic framework of accounting. Emphasis is placed on the accounting cycle and financial statement preparation and analysis. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered. This course is restricted to students enrolled in the Funeral Service Education Curriculum and the Medical Assisting Curriculum.

### ACC 120 Prin of Accounting I 3 2 4

Prerequisites: None Corequisites:None

This course introduces the basic principles and procedures of accounting. Emphasis is placed on

collecting, summarizing, analyzing, and reporting financial information. Upon completion, students should be able to analyze data and prepare journal entries and reports as they relate to the accounting cycle.

### ACC 121 Prin of Accounting II 3 2 4

Prerequisites: ACC 120 Corequisites:None

This course is a continuation of ACC 120.

Emphasis is placed on corporate and managerial accounting for both external and internal reporting and decision making. Upon completion, students should be able to analyze and record corporate transactions, prepare financial statements and reports, and interpret them for management. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### ACC 129 Individual Income Taxes 2 2 3

Prerequisites: None Corequisites:None

This course introduces the relevant laws governing individual income taxation. Emphasis is placed on filing status, exemptions for dependents, gross income, adjustments, deductions, and computation of tax. Upon completion, students should be able to complete various tax forms pertaining to the topics covered in the course.

### ACC 130 Business Income Taxes 2 2 3

Prerequisites: ACC 129 Corequisites:None

This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax depreciation, accounting periods and methods, corporations, partnerships, S corporations, estates and trusts, and gifts. Upon completion, students should be able to complete various tax forms pertaining to the topics covered in the course.

### ACC 150 Computerized

Gen Ledger 1 2 2

Prerequisites: ACC 115 or 120 and CIS 111

Corequisites: None

This course introduces microcomputer applications related to the major accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

### ACC 220 Intermediate Accounting I 3 2 4

Prerequisites: ACC 121 Corequisites:None

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting

principles and statements and extensive analyses of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

**ACC 221 Intermediate Accounting II** 3 2 4

Prerequisites: ACC 220 Corequisites:None

This course is a continuation of ACC 220.

Emphasis is placed on special problems which may include leases, bonds, investments, ratio analysis, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

**ACC 225 Cost Accounting** 3 0 3

Prerequisites: ACC 121 Corequisites:None

This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

**ACC 226 Managerial Accounting** 3 0 3

Prerequisites: ACC 121 and 225

Corequisites: None

This course is designed to develop an appreciation for the uses of cost information in the administration and control of business organizations. Emphasis is placed on how accounting data can be interpreted and used by management in planning and controlling business activities. Upon completion, students should be able to analyze and interpret cost information and present this information in a form that is usable by management.

**ACC 250 Advanced Accounting** 3 0 3

Prerequisites: ACC 220 Corequisites:None

This course is designed to analyze the special problems in accounting for business combinations and consolidated corporate entities. Emphasis is placed on accounting for mergers and consolidations and preparing consolidated working papers and consolidated financial statements. Upon completion, students should be able to solve a wide variety of problems by advanced application of accounting principles and procedures.

**ACC 269 Auditing** 3 0 3

Prerequisites: ACC 220 Corequisites:None

This course covers the overall framework of the

process of conducting audits and investigations. Emphasis is placed on collecting data from working papers, arranging and systematizing the audit, and writing the audit report. Upon completion, students should be able to demonstrate competence in applying the generally accepted auditing standards and the procedures for conducting an audit.

**ACC 279 Advanced Auditing** 3 0 3

Prerequisites: ACC 269 Corequisites:None

This course provides advanced experience in the process of conducting audits and investigations. Emphasis is placed on statistical sampling, analysis, audit program development, professional responsibilities, and the reporting function. Upon completion, students should be able to demonstrate proficiency through completion of audit simulations and/or integrated audit cases.

**AIR CONDITIONING, HEATING, AND REFRIGERATION**

**AHR 110 Intro to Refrigeration** 2 6 5

Prerequisites: None Corequisites:None

This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

**AHR 111 HVACR Electricity** 2 2 3

Prerequisites: None Corequisites:None

This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

**AHR 112 Heating Technology** 2 4 4

Prerequisites: None Corequisites:None

This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

**AHR 113 Comfort Cooling 2 4 4**

Prerequisites: None Corequisites: None

This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation.

**AHR 114 Heat Pump Technology 2 4 4**

Prerequisites: AHR 110 or 113

Corequisites: None

This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance.

Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

**AHR 130 HVAC Controls 2 2 3**

Prerequisites: AHR 111 or ELC 111

Corequisites: None

This course covers the types of controls found in residential and commercial comfort systems.

Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

**AHR 160 Refrigerant Certification 1 0 1**

Prerequisites: None Corequisites:None

This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

**AHR 212 Advanced Comfort Sys 2 6 4**

Prerequisites: AHR 114 Corequisites: None

This course covers water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pump systems including variable speed drives and controls. Emphasis is placed on the application, installation, and servicing of water-source systems and the mechanical and electronic control components of advanced comfort systems. Upon completion, students should be able to test, analyze, and troubleshoot water-cooled comfort systems, water-source/geothermal heat pumps, and high

efficiency heat pumps.

**AHR 250 HVAC System Diagnostics 0 4 2**

Prerequisites: None

Corequisites: AHR 212

This course is a comprehensive study of air conditioning, heating, and refrigeration system diagnostics and corrective measures. Topics include advanced system analysis, measurement of operating efficiency, and inspection and correction of all major system components.

Upon completion, students should be able to restore a residential or commercial AHR system so that it operates at or near manufacturers' specifications.

**AMERICAN INSTITUTE OF BANKING****AIB 110 Principles of Banking 3 0 3**

Prerequisites: None Corequisites:None

This course covers the fundamentals of bank functions in a descriptive fashion. Topics include banks and the monetary system, the relationship of banks to depositors, the payment functions, bank loans and accounting, regulations, and examinations. Upon completion, students should be able to demonstrate an understanding of the business of banking from a broad perspective.

**AIB 131 Fund of Bank Lending 3 0 3**

Prerequisites: ACC 120 Corequisites:None

This course introduces the basic knowledge and skills needed to be an effective lender. Topics include the functions of the loan interview and credit investigation, the C's of credit, elements of loan documentation, and warning signs of problem loans. Upon completion, students should be able to demonstrate an understanding of the credit functions and regulatory issues affecting this key banking function.

**AIB 141 Law & Banking:****Principles**

3 0 3

Prerequisites: None Corequisites:None

This course provides an overview of the legal aspects of banking and the legal framework within which banks function. Topics include the court system, consumer protection, tangible and intangible property ownership, and the legalities and regulations of bank transactions. Upon completion, students should be able to discuss the non-technical aspects of the legal system and how these affect the bank's organization and operation.

**AIB 152 Trust Business 3 0 3**

Prerequisites: None Corequisites:None

This course provides an overview of the trust department. Emphasis is placed on the different types of individual and corporate trusts, agencies,



and services. Upon completion, students should be able to explain the role of the trust department and identify the services provided and to whom they are delivered.

**AIB 222 Money and Banking 3 0 3**

Prerequisites: None Corequisites:None

This course provides a fundamental treatment of how money and banks function in the US and world economies. Topics include the roles of money in the US economy, the functions of the Federal Reserve Board, and the workings of monetary and fiscal policies. Upon completion, students should be able to explain how the monetary economy functions, how banks are creators of money, and the impact of the Federal Reserve.

**AIB 245 Bank Investments 3 0 3**

Prerequisites: None Corequisites:None

This course introduces the factors that affect investment strategies and decisions grounded in a framework of fundamental investment concepts such as risk, liquidity, and yield. Topics include profit and risk analysis, characteristics of specific investment instruments, funds strategies, and investment risks and returns. Upon completion, students should be able to identify and describe bank securities, identify tax factors in bank investments, and define investment accounts and maturity strategies.

**AIB 254 Securities Processing 3 0 3**

Prerequisites: None Corequisites:None

This course covers the elements of securities transactions that affect obligations, options, rights of securities issues, and stockholders. Topics include types of securities, the marketplace, and how automated systems help the trading process and regulations. Upon completion, students should be able to demonstrate knowledge and skills concerning specific securities processing activities.

**ANTHROPOLOGY**

**ANT 210\* General Anthropology 3 0 3**

Prerequisites: None Corequisites:None

This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology.

**ANT 220\* Cultural Anthropology 3 0 3**

Prerequisites: None Corequisites:None

This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural

comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed.

**ARCHITECTURE**

**ARC 111 Intro to Arch Technology 1 6 3**

Prerequisites: None Corequisites:None

This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards. Additionally, this course will include topics related to sketching techniques.

**ARC 112 Constr Matls & Methods 3 2 4**

Prerequisites: None Corequisites:None

This course introduces construction materials and their methodologies. Topics include construction terminology, materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.

**ARC 113 Residential Arch Tech 1 6 3**

Prerequisites: ARC 111

Corequisites: ARC 112

This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules, and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards. Additionally, this course will include topics related to residential design and planning principles.

**ARC 114 Architectural CAD 1 3 2**

Prerequisites: None Corequisites:None

This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

**ARC 131 Building Codes 2 2 3**

Prerequisites: ARC 112 Corequisites:None

This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able



to determine the code constraints governing residential and commercial projects. Additionally, this course will include topics related to land and development and zoning ordinances.

**ARC 141 Elem Structures for Arch 4 0 4**

Prerequisites: ARC 111 and MAT 121

Corequisites: None

This course covers concepts of elementary structures in architecture. Topics include structural form, statics, strength of materials, structural behavior, and the relationship between structures and architectural form. Upon completion, students should be able to size simple structural elements.

**ARC 211 Light Constr Technology 1 6 3**

Prerequisites: ARC 111

Corequisites: ARC 112

This course covers working drawings for light construction. Topics include plans, elevations, sections, and details; schedules; and other related topics. Upon completion, students should be able to prepare a set of working drawings which are within accepted architectural standards. Students will also visit construction sites to view the relationship between the drawn and built environment.

**ARC 212 Commercial Constr Tech 1 6 3**

Prerequisites: ARC 111

Corequisites: ARC 112

This course introduces regional construction techniques for commercial plans, elevations, sections, and details. Topics include production of a set of commercial contract documents and other related topics. Upon completion, students should be able to prepare a set of working drawings in accordance with building codes. Students will also visit construction sites to view the relationship between the drawn and built environment.

**ARC 213 Design Project 2 6 4**

Prerequisites: ARC 111, 112, and 114

Corequisites: None

This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

**ARC 221 Architectural 3-D CAD 1 4 3**

Prerequisites: ARC 114 Corequisites: None

This course introduces architectural three-dimensional CAD applications. Topics include three-dimensional drawing, coordinate systems, viewing, rendering, modeling, and output

options. Upon completion, students should be able to prepare architectural three-dimensional drawings and renderings. Additionally, students will make a simple animation, and explore other computer presentation processes.

**ARC 230 Environmental Systems 3 3 4**

Prerequisites: ARC 111 and MAT 121

Corequisites: None

This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

**ARC 231 Arch Presentations 2 4 4**

Prerequisites: ARC 111 Corequisites: None

This course introduces architectural presentation techniques. Topics include perspective drawing, shadow projection, texturization, rendered plans, elevations, and other related topics. Upon completion, students should be able to present ideas graphically and do rendered presentation drawings. Additionally, students will incorporate computer technology into the presentation process.

**ARC 235 Architectural Portfolio 2 3 3**

Prerequisites: None Corequisites: None

This course covers the methodology for the creation of an architectural portfolio. Topics include preparation of marketing materials and a presentation strategy using conventional and/or digital design media. Upon completion, students should be able to produce an architectural portfolio of selected projects. Additionally, this course will include topics related to resume and job interview preparation.

**ARC 240 Site Planning 2 2 3**

Prerequisites: ARC 111 or LAR 111

Corequisites: None

This course introduces the principles of site planning, grading plans, and earthwork calculations. Topics include site analysis, site work, site utilities, cut and fill, soil erosion control, and other related topics. Upon completion, students should be able to prepare site development plans and details and perform cut and fill calculations.

**ARC 250 Survey of Architecture 3 0 3**

Prerequisites: None Corequisites: None

This course introduces the historical trends in architectural form. Topics include historical and current trends in architecture. Upon completion,

students should be able to demonstrate an understanding of significant historical and current architectural styles.

**ARC 264 Digital Architecture** 1 3 2

Prerequisites: ARC 114 Corequisites:None

This course covers multiple digital architectural techniques. Topics include spreadsheets and word processing procedures, on-line resources, modems, e-mail, image capture, multimedia, and other related topics. Upon completion, students should be able to transmit/receive electronic data, create multimedia presentations, and produce a desktop publishing document.

**ART**

**ART 111\* Art Appreciation** 3 0 3

Prerequisites: None Corequisites:None

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media.

**ASTRONOMY**

**AST 111\* Descriptive Astronomy** 3 0 3

Prerequisites: None Corequisites:None

This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them.

**AST 111A\* Descriptive Astronomy**

Lab 0 2 1

Prerequisites: None

Corequisites: AST 111

The course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them.

**AUTOMATION TRAINING**

**ATR 112 Intro to Automation** 2 3 3

Prerequisites: None Corequisites:None

This course introduces the basic principles of automated manufacturing and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.

**ATR 211 Robot Programming** 2 3 3

Prerequisites: None Corequisites:None

This course provides the operational characteristics of industrial robots and programming in their respective languages. Topics include robot programming utilizing teach pendants, PLCs, and personal computers; and the interaction of external sensors, machine vision, network systems, and other related devices. Upon completion, students should be able to program and demonstrate the operation of various robots.

**ATR 213 Programmable Controllers** 3 3 4

Prerequisites: ELC 131 Corequisites: None

This course provides a detailed study of the PLC, related hardware and programming format, and applications in the automated work cell. Topics include input/output modules, power supplies, operator interface, ladder logic, and Boolean language programming. Upon completion, students should be able to install, program, and maintain PLC-controlled systems.

**ATR 214 Advanced PLCs** 3 3 4

Prerequisites: ATR 213 Corequisites: None

This course introduces the study of high-level programming languages and advanced I/O modules. Topics include STATEMENT, GRAFCET, or other advanced programming languages; system networking; computer interfacing; analog and other intelligent I/O modules; and system troubleshooting. Upon completion, students should be able to write and troubleshoot systems using high-level languages and complex I/O modules.

**ATR 215 Sensors and Transducers** 2 3 3

Prerequisites: ELN 131 Corequisites: None

This course provides the theory and application of sensors typically found in an automated manufacturing system. Topics include physical properties, operating range, and other characteristics of numerous sensors and transducers used to detect temperature, pressure, position, and other desired physical parameters. Upon completion, students should be able to properly interface a sensor to a PLC, PC, or process control system.

**ATR 218 Comp Intg Manufacturing** 2 3 3

Prerequisites: ATR 211 Corequisites: None

This course introduces high technology systems which are currently being used in new automated manufacturing facilities. Topics include integration of robots and work cell components, switches, proximity vision and photoelectric sensors, with the automated control and data gathering systems. Upon completion, students should be able to install, program, and



troubleshoot an automated manufacturing cell and its associated data communications systems.

**ATR 219 Auto Sys Troubleshooting 1 3 2**

Prerequisites: ATR 213 Corequisites: None

This course introduces troubleshooting procedures used in automated systems. Topics include logical fault isolation, diagnostic software usage, component replacement techniques, and calibration; safety of equipment; and protection of equipment while troubleshooting. Upon completion, students should be able to analyze and troubleshoot an automated system.

**AUTOBODY REPAIR**

**AUB 111 Painting & Refinishing I 2 6 4**

Prerequisites: None Corequisites:None

This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.

**AUB 112 Painting & Refinishing II 2 6 4**

Prerequisites: AUB 111 Corequisites: None

This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems.

**AUB 114 Special Finishes 1 2 2**

Prerequisites: AUB 111 Corequisites: None

This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

**AUB 121 Non-Structural Damage I 1 4 3**

Prerequisites: None Corequisites:None

This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/ replacing of body

panels to accepted standards.

**AUB 122 Non-Structural Damage II 2 6 4**

Prerequisites: None Corequisites:None

This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware.

**AUB 131 Structural Damage I 2 4 4**

Prerequisites: None Corequisites:None

This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

**AUB 132 Structural Damage II 2 6 4**

Prerequisites: AUB 131 Corequisites: None

This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.

**AUB 134 Autobody MIG Welding 1 4 3**

Prerequisites: None Corequisites:None

This course covers the terms and procedures for welding the various metals found in today's autobody repair industry with an emphasis on personal/environmental safety. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

**AUB 136 Plastics & Adhesives 1 4 3**

Prerequisites: None Corequisites:None

This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures

including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.

**AUB 150 Automotive Detailing** 1 3 2  
Prerequisites: None Corequisites:None

This course covers the methods and procedures used in automotive detailing facilities. Topics include safety, engine, interior and trunk compartment detailing, buffing/polishing exterior surfaces, and cleaning and reconditioning exterior trim, fabrics, and surfaces. Upon completion, students should be able to improve the overall appearance of a vehicle.

**AUB 160 Body Shop Operations** 1 0 1  
Prerequisites: None Corequisites:None

This course introduces the day-to-day operations of autobody repair facilities. Topics include work habits and ethics, customer relations, equipment types, materials cost and control, policies and procedures, shop safety and liabilities, and other related topics. Upon completion, students should be able to understand the general operating policies and procedures associated with an autobody repair facility.

**AUB 162 Autobody Estimating** 1 2 2  
Prerequisites: None Corequisites:None

This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

**AUTOMOTIVE**

**AUT 110 Intro to Auto Technology** 2 2 3  
Prerequisites: None Corequisites:None

This course covers the basic concepts and terms of automotive technology, workplace safety, North Carolina state inspection, safety and environmental regulations, and use of service information resources. Topics include familiarization with components along with identification and proper use of various automotive hand and power tools. Upon completion, students should be able to describe terms associated with automobiles, identify and use basic tools and shop equipment, and conduct North Carolina safety/emissions inspections.

**AUT 115 Engine Fundamentals** 2 3 3  
Prerequisites: None Corequisites:None

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment,

and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis/repair of automotive engines using appropriate tools, equipment, procedures, and service information.

**AUT 116 Engine Repair** 1 3 2  
Prerequisites: None Corequisites:None

This course covers service/repair/rebuilding of block, head, and internal engine components. Topics include engine repair/reconditioning using service specifications. Upon completion, students should be able to rebuild/recondition an automobile engine to service specifications.

**AUT 141 Suspension & Steering Systems** 2 4 4  
Prerequisites: None Corequisites:None

This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair various steering and suspension components, check and adjust various alignment angles, and balance wheels.

**AUT 151 Brake Systems** 2 2 3  
Prerequisites: None Corequisites:None

This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

**AUT 152 Brake Systems Lab** 0 2 1  
Prerequisites: None  
Corequisites: AUT 151

This course provides a laboratory setting to enhance brake system skills. Emphasis is placed on practical experiences that enhance the topics presented in AUT 151. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 151.

**AUT 161 Electrical Systems** 2 6 4  
Prerequisites: None Corequisites:None

This course covers basic electrical theory and wiring diagrams, test equipment, and diagnosis/repair/replacement of batteries, starters, alternators, and basic electrical accessories. Topics include diagnosis and repair of battery, starting, charging, lighting, and basic accessory systems problems. Upon completion, students



should be able to diagnose, test, and repair the basic electrical components of an automobile.

**AUT 164 Automotive Electronics 2 2 3**

Prerequisites: AUT 161 Corequisites:None

This course covers fundamentals of electrical/electronic circuitry, semi-conductors, and microprocessors. Topics include Ohm's law, circuits, AC/DC current, solid state components, digital applications, and the use of digital multimeters. Upon completion, students should be able to apply Ohm's law to diagnose and repair electrical/electronic circuits using digital multimeters and appropriate service information.

**AUT 171 Heating & Air**

**Conditioning 2 3 3**

Prerequisites: None Corequisites:None

This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis/repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.

**AUT 181 Engine Performance-**

**Electrical 2 3 3**

Prerequisites: None Corequisites:None

This course covers the principles, systems, and procedures required for diagnosing and restoring engine performance using electrical/electronics test equipment. Topics include procedures for diagnosis and repair of ignition, emission control, and related electronic systems. Upon completion, students should be able to describe operation of and diagnose/repair ignition/emission control systems using appropriate test equipment and service information.

**AUT 183 Engine Performance-Fuels 2 3 3**

Prerequisites: None Corequisites:None

This course covers the principles of fuel delivery/management, exhaust/emission systems, and procedures for diagnosing and restoring engine performance using appropriate test equipment. Topics include procedures for diagnosis/repair of fuel delivery/management and exhaust/emission systems using appropriate service information. Upon completion, students should be able to describe, diagnose, and repair engine fuel delivery/management and emission control systems using appropriate service information and diagnostic equipment.

**AUT 211 Automotive Machining 2 6 4**

Prerequisites: None Corequisites:None

This course covers engine machining processes for remanufacturing automotive engines. Emphasis is placed on cylinder head service, machining block surfaces, reconditioning connecting rod assemblies, camshafts, flywheels, and precision measurement. Upon completion, students should be able to explain the operation and proper use of automotive machining equipment.

**AUT 221 Automatic Transmissions 2 6 4**

Prerequisites: None Corequisites:None

This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair automatic drive trains.

**AUT 231 Manual Drive Trains/**

**Axles 2 3 3**

Prerequisites: None Corequisites:None

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair manual drive trains.

**AUT 241 Adv Chassis/Suspension 2 6 4**

Prerequisites: AUT 141 Corequisites: None

This course provides advanced training in automotive chassis and suspension using computerized two- and four-wheel alignment equipment. Emphasis is placed on suspension and chassis system design, construction, and repair for modern front- and rear-drive vehicles. Upon completion, students should be able to perform necessary adjustments and repairs on vehicles using computerized alignment equipment.

**AUT 251 Introduction to Racing 3 0 3**

Prerequisites: None Corequisites:None

This course provides information about working safely in a racing environment, different types of racing, and types of car designs. Topics include shop and truck safety and an introduction to the racing environment and various car designs. Upon completion, students should be able to work safely at both the shop and track and understand the various types and costs of racing. Admission to this course is based on completion

of first year of Automotive System Technology or by permission of department head.

**AUT 252 Racing Engine**

**Preparation**

3 9 6

Prerequisites: AUT 115 and 116

Corequisites: None

This course includes selection and fit of proper engine components to maximize power and reliability in today's racing engines. Topics include component selection, blueprinting, machining of components, cylinder head and block preparation, balancing, matching of heads, intake manifold, and camshaft for maximum power. Upon completion, students should be able to assemble a complete racing engine.

Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.

**AUT 253 Race Engine Accessories** 2 4 4

Prerequisites: AUT 181 and 183

Corequisites: AUT 252

This course provides information on selection and use of components in the ignition, fuel, oiling, and cooling systems. Emphasis will be placed on selecting and installing different types of systems to maximize efficiency for engine power and life. Upon completion, students should be able to install the ignition, fuel, oiling, and cooling systems with modifications necessary for particular applications. Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.

**AUT 254 Chassis Fabrication** 3 9 6

Prerequisites: WLD 110 and AUB 134

Corequisites: None

This course is designed to enable students to build a racing chassis following either a prepared blueprint or their own design. Topics include cutting and fitting various types of tubing, and using machines and saws necessary to fabricate the race car components. Upon completion, students should be able to build a racing chassis with the correct geometric angles. Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.

**AUT 255 Sheet Metal Fabrication** 1 6 3

Prerequisites: None

Corequisites: AUT 254

This course is designed to build student's skills with various tools and equipment necessary to make interior and exterior sheet metal panels. Emphasis is placed on how to cut, bend, and shape sheet metal into various parts necessary to build a race car. Upon completion, students

should be able to form and fit to the chassis the metal panels that they or another manufacturer has made. Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.

**AUT 256 Setting up the Race Car** 4 4 6

Prerequisites: AUT 141

Corequisites: AUT 254

This course covers selection of proper chassis, springs, and shocks; and communicating with the driver in order to make necessary adjustments at the track. Topics include selection of springs and shocks; making changes, and keeping proper records of control arm angles, frame height, and chassis travel. Upon completion, students should be able to check tire temperature and shock travel, and explain how changes in the chassis set-up will increase performance. Admission to this course is based on completion of first year of Automotive System Technology or by permission of department head.

**AUT 281 Adv Engine Performance** 2 2 3

Prerequisites: None Corequisites: None

This course utilizes service information and specialized test equipment to diagnose/repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform advanced engine performance diagnosis and repair.

**BIOLOGY**

**BIO 090 Foundations of Biology** 3 2 4

Prerequisites: None

Corequisites: RED 090

This course introduces basic biological concepts. Topics include basic biochemistry, cell structure and function, interrelationships among organisms, scientific methodology, and other related topics. Upon completion, students should be able to demonstrate preparedness for college-level biology courses.

**BIO 094 Concepts of Human Biology**

3 2 4

Prerequisites: None

Corequisites: RED 090

This course focuses on fundamental concepts of human biology. Topics include terminology, biochemistry, cell biology, tissues, body systems, and other related topics. Upon completion, students should be able to demonstrate preparedness for college-level anatomy and physiology courses.



**BIO 111\* General Biology I** 3 3 4

Prerequisites: High School Chemistry or  
CHM 092

Corequisites: None

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. Enrollment in this course more than twice by written permission of the department chair only.

**BIO 112\* General Biology II** 3 3 4

Prerequisites: BIO 111 Corequisites: None

This course is a continuation of BIO 111.

Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. Enrollment in this course more than twice by written permission of the department chair only.

**BIO 120\* Introductory Botany** 3 3 4

Prerequisites: BIO 110 or BIO 111 and BIO 112

Corequisites: None

This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants.

**BIO 130\* Introductory Zoology** 3 3 4

Prerequisite: BIO 110 or BIO 111 and BIO 112

Corequisites: None

This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups.

**BIO 163 Basic Anat & Physiology** 4 2 5

Prerequisites: High School Chemistry or  
CHM 092

Corequisites: None

This course provides a basic study of the structure and function of the human body. Topics

include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes.

Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.

Enrollment in this course more than twice by written permission of the department chair only.

This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**BIO 168 Anatomy and****Physiology I**

3 3 4

Prerequisites: High School Chemistry or  
CHM 092

Corequisites: None

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

Enrollment in this course more than twice by written permission of the department chair only.

This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**BIO 169 Anatomy and****Physiology II**

3 3 4

Prerequisites: BIO 168 Corequisites: None

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. Enrollment in this course more than twice by written permission of the department chair only. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**BIO 175 General Microbiology** 2 2 3

Prerequisite: BIO 110 or BIO 163 or BIO 166 or  
BIO 169

Corequisites: None

This course covers principles of microbiology with emphasis on microorganisms and human

disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**BIO 271 Pathophysiology 3 0 3**

Prerequisites: BIO 163, BIO 166, or BIO 169

Corequisites: None

This course provides an in-depth study of human pathological processes and their effects on homeostasis. Emphasis is placed on interrelationships among organ systems in deviations from homeostasis. Upon completion, students should be able to demonstrate a detailed knowledge of pathophysiology. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

## BLUEPRINT READING

**BPR 111 Blueprint Reading 1 2 2**

Prerequisites: None Corequisites:None

This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic blueprints and visualize the features of a part.

**BPR 121 Blueprint Reading: Mech 1 2 2**

Prerequisites: BPR 111 or MAC 131

Corequisites: None

This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.

**BPR 130 Blueprint Reading/Const 1 2 2**

Prerequisites: None Corequisites:None

This course covers the interpretation of blueprints and specifications that are associated with the construction trades. Emphasis is placed on interpretation of details for foundations, floor plans, elevations, and schedules. Upon completion, students should be able to read and interpret a set of construction blueprints.

## BUSINESS

**BUS 110 Introduction to Business 3 0 3**

Prerequisites: None Corequisites:None

This course provides a survey of the business

world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**BUS 115 Business Law I 3 0 3**

Prerequisites: None Corequisites:None

This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**BUS 116 Business Law II 3 0 3**

Prerequisites: BUS 115 Corequisites:None

This course continues the study of ethics and business law. Emphasis is placed on bailments, sales, risk-bearing, forms of business ownership, and copyrights. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

**BUS 121 Business Math 2 2 3**

Prerequisites: None Corequisites:None

This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.

**BUS 125 Personal Finance 3 0 3**

Prerequisites: None Corequisites:None

This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.

**BUS 137 Principles of Management 3 0 3**

Prerequisites: None Corequisites:None

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.



**BUS 151 People Skills** 3 0 3  
 Prerequisites: None Corequisites:None  
 This course introduces the basic concepts of identity and communication in the business setting. Topics include self-concept, values, communication styles, feelings and emotions, roles versus relationships, and basic assertiveness, listening, and conflict resolution. Upon completion, students should be able to distinguish between unhealthy, self-destructive, communication patterns and healthy, non-destructive, positive communication patterns.

**BUS 230 Small Business Management** 3 0 3  
 Prerequisites: None Corequisites:None  
 This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.

**BUS 270 Professional Development** 3 0 3  
 Prerequisites: None Corequisites:None  
 This course provides basic knowledge of self-improvement techniques as related to success in the professional world. Topics include positive human relations, job-seeking skills, and projecting positive self-image. Upon completion, students should be able to demonstrate competent personal and professional skills necessary to get and keep a job.

## **CARPENTRY**

**CAR 110 Introduction to Carpentry** 2 0 2  
 Prerequisites: None Corequisites:None  
 This course introduces the student to the carpentry trade. Topics include duties of a carpenter, hand and power tools, building materials, construction methods, and safety. Upon completion, students should be able to identify hand and power tools, common building materials, and basic construction methods.

**CAR 111 Carpentry I** 3 15 8  
 Prerequisites: None Corequisites:None  
 This course introduces the theory and construction methods associated with the building industry, including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision.

**CAR 112 Carpentry II** 3 15 8  
 Prerequisites: CAR 111 Corequisites: None  
 This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision.

**CAR 113 Carpentry III** 3 9 6  
 Prerequisites: CAR 111 Corequisites: None  
 This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry, and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.

**CAR 114 Residential Bldg Codes** 3 0 3  
 Prerequisites: None Corequisites:None  
 This course covers building codes and the requirements of state and local construction regulations. Emphasis is placed on the minimum requirements of the North Carolina building codes related to residential structures. Upon completion, students should be able to determine if a structure is in compliance with North Carolina building codes.

**CAR 115 Res Planning/Estimating** 3 0 3  
 Prerequisites: BPR 130 Corequisites: None  
 This course covers project planning, management, and estimating for residential or light commercial buildings. Topics include planning and scheduling, interpretation of working drawings and specifications, estimating practices, and other related topics. Upon completion, students should be able to perform quantity take-offs and cost estimates.

## **COMPUTED TOMOGRAPHY**

**CAT 210 CT Physics & Equipment** 3 0 0 3  
 Prerequisites: Enrollment in the CT/MRI program or CT certificate program  
 Corequisites: None  
 This course covers the system operations and components, image processing and display, image quality, and artifacts in computed tomography. Emphasis is placed on the data acquisition components, tissue attenuation conversions, image manipulation, and factors controlling image resolution. Upon completion, students should be able to understand the physics and instrumentation used in computed tomography.

**CAT 211 CT Procedures 4 0 0 4**

Prerequisites: Enrollment in the CT/MRI program or CT certificate program

Corequisites: CAT 210

This course is designed to cover specialized patient care, cross-sectional anatomy, contrast media, and scanning procedures in computed tomography. Emphasis is placed on patient assessment and monitoring, contrast agents' use, radiation safety, methods of data acquisition, and identification of cross-sectional anatomy. Upon completion, students should be able to integrate all facets of the imaging procedures in computed tomography.

**CAT 231 CT Clinical Practicum 0 0 3311**

Prerequisites: Enrollment in CT/MRI program or CT certificate program

Corequisites: None

This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.

**COMPUTER ENGINEERING****CET 111 Computer Upgrade/Repair I 2 3 3**

Prerequisites: None Corequisites: None

This course is the first of two courses covering repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include safety practices, CPU/memory/bus identification, disk subsystem, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications. This course is limited to students currently admitted to the Computer Engineering Technology or Electronics Engineering Technology Programs.

**CET 211 Computer Upgrade/Repair II 2 3 3**

Prerequisites: CET 111 Corequisites: None

This course is the second of two courses covering repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include resolving resource conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system configuration and optimization, and other related topics. Upon completion, students should be able

to identify and resolve system conflicts and optimize system performance.

**CET 212 Integrated Mfg Systems 1 3 2**

Prerequisites: ELN 237 Corequisites: None

This course covers computer topics related to integrated manufacturing systems common to current manufacturing facilities. Topics include robot programming, automated control systems, PLCs, data communication, and networking in an integrated manufacturing environment, and other related topics. Upon completion, students should be able to program robots using teaching pendants and troubleshoot and maintain network installations related to integrated manufacturing systems.

**CET 222 Computer Architecture 2 0 2**

Prerequisites: None Corequisites: None

This course introduces the organization and design philosophy of computer systems with respect to resource management, throughput, and operating system interaction. Topics include instruction sets, registers, data types, memory management, virtual memory, cache, storage management, multi-processing, and pipelining. Upon completion, students should be able to evaluate system hardware and resources for installation and configuration purposes.

**CET 245 Internet Servers 2 3 3**

Prerequisites: CSC 134 Corequisites: None

This course covers the setup and management of Internet server hardware and software. Topics include TCP/IP, FTP, SMTP, and SNMP; installation and configuration of server software for WWW, FTP, DNS, news, mail, and listserve services; and other topics. Upon completion, students should be able to set up and maintain Internet serves.

**CHEMISTRY****CHM 090 Chemistry Concepts 4 0 4**

Prerequisite: MAT 070 Corequisites: None

This course provides a non-laboratory based introduction to basic concepts of chemistry. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts necessary for success in college-level science courses.

**CHM 092 Fundamentals of Chemistry 3 2 4**

Prerequisites: High School algebra or MAT 070

Corequisites: None

This course covers fundamentals of chemistry with laboratory applications. Topics include



measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts and demonstrate basic laboratory skills necessary for success in college-level science courses. The course will also cover special topics in chemistry intended to reinforce and supplement the basic course material.

### **CHM 130 General, Organic, &**

#### **Biochemistry 3 0 3**

Prerequisites: None Corequisites: None

This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### **CHM 130A General, Organic, &**

#### **Biochemistry Lab 0 2 1**

Prerequisites: None

Corequisites: CHM 130

This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### **CHM 131\* Intro to Chemistry 3 0 3**

Prerequisites: High School Chemistry or CHM 092

Corequisites: None

This course introduces the fundamental concepts of inorganic chemistry. Topics include measurements, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields.

### **CHM 131A\* Intro to Chemistry Lab 0 3 1**

Prerequisites: None

Corequisites: CHM 131

This course is a laboratory to accompany

CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131.

### **CHM 151\* General Chemistry I 3 3 4**

Prerequisites: High School Chemistry or CHM 092

Corequisites: None

This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152.

### **CHM 152\* General Chemistry II 3 3 4**

Prerequisites: CHM 151 Corequisites: None

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields.

### **CHM 251 Organic Chemistry I 3 3 4**

Prerequisite: CHM 152 Corequisites: None

This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### **CHM 252 Organic Chemistry II 3 3 4**

Prerequisite: CHM 251 Corequisites: None

This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be

emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

## **INFORMATION SYSTEMS**

### **CIS 110\* Intro to Computers 2 2 3**

Prerequisites: None Corequisites:None

This course provides an introduction to computers and computing. Topics include the impact of computers on society, ethical issues, and hardware/software applications, including spreadsheets, databases, word processors, graphics, the Internet, and operating systems. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.

### **CIS 111 Basic PC Literacy 1 2 2**

Prerequisites: None Corequisites:None

This course provides a brief overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.

### **CIS 112 Windows™ 1 2 2**

Prerequisites: None Corequisites:None

This course includes the fundamentals of the Windows software. Topics include graphical user interface, icons, directories, file management, accessories, and other applications. Upon completion, students should be able to use Windows software in an office environment.

### **CIS 113 Computer Basics 0 2 1**

Prerequisites: None Corequisites:None

This course introduces basic computer usage for non-computer majors. Emphasis is placed on developing basic personal computer skills. Upon completion, students should be able to demonstrate competence in basic computer applications sufficient to use computer-assisted instructional software.

### **CIS 115\* Intro to Prog & Logic 2 2 3**

Prerequisites: MAT 070 Corequisites:None

This course introduces computer programming and problem solving in a programming environment, including an introduction to operating systems, text editor, and a language translator. Topics include language syntax, data types, program organization, problem-solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system

commands, use top-down algorithm design, and implement algorithmic solutions in a programming language.

### **CIS 116 Intro PC App Development 2 3 3**

Prerequisites: None Corequisites:None

This course provides an introductory study of the principles of application development and end-user interface design principles. Emphasis is placed on tables, file management, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design and program a PC application at the introductory level.

### **CIS 118 IS Professional Comm 2 0 2**

Prerequisites: None Corequisites:None

This course prepares the information systems professional to communicate with corporate personnel from management to end-users. Topics include information systems cost justification tools, awareness of personal hierarchy of needs, addressing these needs, and discussing technical issues with non-technical personnel. Upon completion, students should be able to communicate information systems issues to technical and non-technical personnel.

### **CIS 120 Spreadsheet I 2 2 3**

Prerequisites: CIS 110 or CIS 111 or OST 137

Corequisites: None

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

### **CIS 121 User Support & Softw Eval 1 4 3**

Prerequisites: CIS 110 or 111 Corequisites:None

This course provides an opportunity to evaluate software and hardware and make recommendations to meet end-user needs. Emphasis is placed on software and hardware evaluation, installation, training, and support. Upon completion, students should be able to present proposals and make hardware and software recommendations based on their evaluations.

### **CIS 122 Intro to Business Comp 2 2 3**

Prerequisites: CIS 110 or 111 Corequisites:None

This course provides preparation in solving business problems using computers. Topics include hardware and software concepts, the DOS operating system, Windows™, spreadsheets, and communications. Upon completion, students should be able to use DOS



commands, navigate a Windows™ environment, use spreadsheet capabilities, and access information in a business environment.

**CIS 124 DTP Graphics Software 2 2 3**

Prerequisites: None Corequisites: None

This course introduces graphic design software using a variety of software packages. Emphasis is placed on efficient utilization of software capabilities. Upon completion, students should be able to incorporate appropriate graphic designs into desktop publishing publications.

**CIS 126 Graphics Software Intro 2 2 3**

Prerequisites: None Corequisites: None

This course provides an introduction to graphic design and execution of pictorial graphics using a variety of software packages. Emphasis is placed on creation and manipulation of images using graphic design software. Upon completion, students should be able to create graphic designs and incorporate these designs into printed publications.

**CIS 128 Computer Language Survey 3 0 3**

Prerequisites: None Corequisites: None

This course provides an opportunity to compare various computer languages. Emphasis is placed on appropriate uses, syntax, and comparative programming. Upon completion, students should be able to select the appropriate language for problem solving.

**CIS 130 Survey of Operating Sys 2 3 3**

Prerequisites: CIS 110 or 111 Corequisites: None

The course covers operating system concepts which are necessary for maintaining and using computer systems. Topics include disk, file, and directory structures; installation and setup; resource allocation, optimization, and configuration; system security; and other related topics. Upon completion, students should be able to install and configure operating systems and optimize performance.

**CIS 144 Operating System - DOS 2 2 3**

Prerequisites: None  
Corequisites: CIS 130

This course introduces operating systems concepts for DOS operating systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions at the support level in a DOS environment.

**CIS 145 Operating System - Single-User 2 2 3**

Prerequisites: None  
Corequisites: CIS 130

This course introduces operating systems

concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions at the support level in a single-user environment. This is a Microsoft certified class for MCSE certification.

**CIS 146 Operating System - OS/2 2 2 3**

Prerequisites: None  
Corequisites: CIS 130

This course introduces operating systems concepts for the OS/2 operating system. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions at the support level in a OS/2 environment.

**CIS 147 Operating System - Windows 2 2 3**

Prerequisites: None  
Corequisites: CIS 130

This course introduces operating systems concepts for a Windows operating system. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions at the support level in a Windows environment.

**CIS 148 Operating System- Windows NT 2 2 3**

Prerequisites: None  
Corequisites: CIS 130

This course introduces operating systems concepts for the Windows NT operating system. Topics include hardware management, file and memory management, system configuration/optimization, networking options, and utilities. Upon completion, students should be able to perform operating system functions at the single/multi-user support level in a Windows NT environment.

**CIS 149 Operating System - MVS 2 2 3**

Prerequisites: None  
Corequisites: CIS 130

This course introduces operating systems concepts for MVS operating systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions at the support level in an MVS environment.

**CIS 152 Database Concepts & Apps** 2 2 3

Prerequisites: CIS 110, 111, or 115

Corequisites: None

This course introduces database design and creation using a DBMS product. Topics include database terminology, usage in industry, design theory, types of DBMS models, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to create simple database tables, queries, reports, and forms which follow acceptable design practices.

**CIS 153 Database Applications** 2 2 3

Prerequisites: CIS 152 Corequisites:None

This course covers advanced database functions continued from CIS 152. Topics include manipulating multiple tables, advanced queries, screens and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screens, and reports representative of industry requirements.

**CIS 154 Database Utilization** 1 2 2

Prerequisites: CIS 110 or CIS 111 or OST 137

Corequisites: None

This course introduces basic database functions and uses. Emphasis is placed on database manipulation with queries, reports, forms, and some table creation. Upon completion, students should be able to enter and manipulate data from the end-user mode.

**CIS 155 Database Theory/Analysis** 2 2 3

Prerequisites: CIS 152 Corequisites: None

This course introduces database design theories and analysis. Emphasis is placed on data dictionaries, normalization, data integrity, and data modeling. Upon completion, students should be able to design normalized database structures which exhibit data integrity.

**CIS 157 Database Programming I** 2 2 3

Prerequisites: CIS 130 and 152Corequisites:None

This course is designed to develop programming proficiency in a selected DBMS. Emphasis is placed on the Data Definition Language (DDL) and Data Manipulation Language (DML) of the DBMS as well as on report generation. Upon completion, students should be able to write programs which create, update, and produce reports representative of industry requirements.

**CIS 160 MM Resources Integration** 2 2 3

Prerequisites: CIS 110 or 111 Corequisites:None

This course introduces the peripherals and attendant software needed to create stand-alone or

networked interactive multimedia applications. Emphasis is placed on using audio, video, graphic, and network resources; using peripheral-specific software; and understanding file formats. Upon completion, students should be able to utilize multimedia peripherals to create various sound and visual files to create a multimedia application.

**CIS 161 DTP Proofreading & Editing** 2 0 2

Prerequisites: None Corequisites:None

This course covers the fundamentals of on-screen proofreading and editing. Emphasis is placed on the on-screen procedures and skills needed for controlling the accuracy and quality of text. Upon completion, students should be able to proofread and correct on-screen the appearance, format, accuracy, and content of documents.

**CIS 162 MM Presentation Software** 2 2 3

Prerequisites: CIS 110 or 111 Corequisites:None

This course is designed to integrate visual and audio resources using presentation software in a simple interactive multimedia project. Emphasis is placed upon design and audience considerations, general prototyping, and handling of media resources. Upon completion, students should be able to demonstrate an original interactive multimedia presentation implementing all of these resources in a professional manner.

**CIS 163 Prog Interfaces Internet** 2 2 3

Prerequisites: CIS 110 or 111 Corequisites:None

This course creates interactive multimedia applications and applets for the Internet using web-specific languages. Emphasis is placed on audio, video, graphic, and network resources and various file formats. Upon completion, students should be able create an interactive multimedia application or applet for the Internet.

**CIS 164 DTP Layout & Design** 2 2 3

Prerequisites: None Corequisites:None

This course introduces the fundamentals of design and page layout. Emphasis is placed on page layout organization, typography, and color. Upon completion, students should be able to create projects that visually enhance communication.

**CIS 165 Desktop Publishing I** 2 2 3

Prerequisites: CIS 110 or 111 Corequisites:None

This course provides an introduction to desktop publishing software capabilities. Emphasis is placed on efficient use of a page layout software package to create, design, and print publications; hardware/software compatibility; and integration of specialized peripherals. Upon completion, students should be able to prepare publications given design specifications.



**CIS 166 Desktop Publishing II 2 2 3**

Prerequisites: CIS 165 Corequisites: None

This course provides advanced training in the use of a variety of desktop publishing software.

Emphasis is placed on evaluation of software and hardware available for desktop publishing. Upon completion, students should be able to create and design complex publications using a variety of page layout software.

**CIS 168 Desktop Presentations 1 2 2**

Prerequisites: CIS 166 Corequisites: None

This course provides advanced training in desktop publications and projects designed for business presentations. Emphasis is placed on the most appropriate software package or packages to complete simulated or 'live' business projects. Upon completion, students should be able to create and manage presentations using various microcomputer software programs.

**CIS 169 Business Presentations 1 2 2**

Prerequisites: CIS 110 or 111 Corequisites: None

This course provides hands-on experience with a graphics presentation package. Topics include terminology, effective chart usage, design and layout, integrating hardware components, and enhancing presentations with text and graphics. Upon completion, students should be able to design and demonstrate an effective presentation.

**CIS 170 Tech Support****Functions I 2 2 3**

Prerequisites: CIS 115 Corequisites: None

This course introduces a variety of diagnostic and instructional tools that are used to evaluate the performance of technical support technologies. Emphasis is placed on technical support management techniques and support technologies. Upon completion, students should be able to determine the best technologies to support and solve actual technical support problems.

**CIS 172 Intro to the Internet 2 3 3**

Prerequisites: CIS 110 or 111 Corequisites: None

This course introduces the various navigational tools and services of the Internet. Topics include using Internet protocols, search engines, file compression/decompression, FTP, e-mail, listservers, and other related topics. Upon completion, students should be able to use Internet resources, retrieve/decompress files, and use e-mail, FTP, and other Internet tools.

**CIS 173 Network Theory 2 2 3**

Prerequisites: None Corequisites: None

This course examines Token Ring, Ethernet, and Arcnet networks. Topics include LAN topologies and design; cable characteristics; cable, interface cards, server, and client

installation; basic management techniques; linking networks; and troubleshooting LAN problems. Upon completion, students should be able to install both hardware and software for a small client/server LAN and troubleshoot common network problems. This course will be centered around fundamental operating system knowledge and hardware/software skills.

**CIS 174 Network System****Manager I 2 2 3**

Prerequisites: CIS 130 Corequisites: None

This course covers effective network management. Topics include network file system design and security, login scripts and user menus, printing services, e-mail, and backup. Upon completion, students should be able to administer an office network system. A course number ending with an "N" indicates a Novell Certified course; those ending with an "M" indicate a Microsoft Certified course.

**CIS 175 Network Management I 2 2 3**

Prerequisites: CIS 130 Corequisites: None

This course covers fundamental network administration and system management. Topics include accessing and configuring basic network services, managing directory services, and using network management software. Upon completion, students should be able to apply system administrator skills in developing a network management strategy. A course number ending with an "N" indicates a Novell Certified course; those ending with an "M" indicate a Microsoft Certified course.

**CIS 182 Printing on the Network 2 2 3**

Prerequisites: CIS 174 or 175 Corequisites: None

This course focuses on effective management of printing on a network. Topics include installation, configuration, and management of print servers and print queues, remote printer setup, and customizing print jobs. Upon completion, students should be able to implement and troubleshoot network printing.

**CIS 184 TCP/IP and NFS 2 2 3**

Prerequisites: CIS 175 Corequisites: None

This course focuses on installation and configuration of TCP/IP on a network. Topics include an overview of TCP/IP, SNMP, application of programming interfaces, Network File System (NFS), IP addresses, and routing and tunneling. Upon completion, students should be able to install, monitor, manage, diagnose, and troubleshoot common problems in IP networks and internetworks. A course number ending with an "N" indicates a Novell Certified course; those ending with an "M" indicate a Microsoft Certified course.

**CIS 211 AS/400 Maint & Oper 2 3 3**

Prerequisites: None Corequisites: None

This course is designed to cover the fundamental AS/400 System operations, screens, utilities, and terminology. Topics include an introduction to the AS/400 operating system, security, backup and restore, handling spooled files, and using commands and menus to create and manipulate objects. Upon completion, students should be able to use utilities, create libraries, save and restore files, monitor and control jobs and queues, and know AS/400 operations.

**CIS 215 Hardware Install/Maint 2 3 3**

Prerequisites: CIS 110, 111, or 115

Corequisites: None

This course covers the basic hardware of a personal computer, including operations and interactions with software. Topics include component identification, the memory system, peripheral installation and configuration, preventive maintenance, and diagnostics and repair. Upon completion, students should be able to select appropriate computer equipment, upgrade and maintain existing equipment, and troubleshoot and repair non-functioning personal computers. A course number with a "C" suffix indicates an A+ certification class.

**CIS 216 Software Install/Maint 1 2 2**

Prerequisites: CIS 130 Corequisites: None

This course introduces the installation and troubleshooting aspects of personal computer software. Emphasis is placed on initial installation and optimization of system software, commercial programs, system configuration files, and device drivers. Upon completion, students should be able to install, upgrade, uninstall, optimize, and troubleshoot personal computer software.

**CIS 217 Computer Train & Support 2 2 3**

Prerequisites: None Corequisites: None

This course introduces computer training and support techniques. Topics include methods of adult learning, training design, delivery, and evaluation, creating documentation, and user support methods. Upon completion, students should be able to design and implement training and provide continued support for computer users.

**CIS 218 Introduction to AI 3 0 3**

Prerequisites: CIS 130 Corequisites: None

This course introduces artificial intelligence. Emphasis is placed on expert systems. Upon completion, students should be able to discuss the basic concepts and procedures in the development of artificial intelligence systems.

**CIS 219 Adv PC App Development 2 3 3**

Prerequisites: CIS 116 Corequisites: None

This course provides an advanced study of the principles of application development and end-user interface design principles. Emphasis is placed on advanced arrays/tables, file management, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design and program a PC application at the advanced level.

**CIS 220 Spreadsheets II 1 2 2**

Prerequisites: CIS 120 Corequisites: None

This course covers advanced spreadsheet design and development. Topics include advanced functions, charting, macros, databases, and linking. Upon completion, students should be able to demonstrate competence in designing complex spreadsheets.

**CIS 226 Trends in Technology 1 2 2**

Prerequisites: None Corequisites: None

This course introduces emerging information systems technologies. Emphasis is placed on evolving technologies and trends in business and industry. Upon completion, students should be able to articulate an understanding of the current trends and issues in emerging technologies for information systems.

**CIS 227 Microcomputer Sys Analysis 2 2 3**

Prerequisites: CIS 115 and 144 or 145 or 146 or 147 or 148 or 149

Corequisites: None

This course covers use of a systems approach to planning and implementing business information systems in a microcomputer environment. Emphasis is placed on end-user applications, rather than centralized MIS, and development of strong analytical skills. Upon completion, students should be able to apply analytical and problem-solving skills to resolve typical microcomputer systems planning and implementation issues.

**CIS 228 Project Manager 1 2 2**

Prerequisites: CIS 130 Corequisites: None

This course introduces computerized project management software. Topics include identifying critical paths, cost management, time management, and problem solving. Upon completion, students should be able to plan a complete project and project time and costs accurately.



**CIS 244 Operating System -  
AS/400**

2 3 3

Prerequisites: CIS 110 and 130

Corequisites: None

This course includes operating systems concepts for AS/400 systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions in an AS/400 environment.

**CIS 245 Operating System -  
Multi-User**

2 3 3

Prerequisites: CIS 110 Corequisites: None

This course includes operating systems concepts for multi-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions in a multi-user environment.

**CIS 246 Operating System -  
UNIX**

2 3 3

Prerequisites: CIS 110 and 130

Corequisites: None

This course includes operating systems concepts for UNIX operating systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, and other related topics. Upon completion, students should be able to effectively use the UNIX operating system and its utilities.

**CIS 247 Operating System -  
DOS/VSE**

2 3 3

Prerequisites: None Corequisites:None

This course includes operating systems concepts for DOS/VSE operating systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions in a DOS/VSE environment.

**CIS 256 Database Analysis &  
Design**

3 0 3

Prerequisites: CIS 115 Corequisites:None

This course is an exploration of the established and evolving methodologies for the analysis, design, and development of a database system. Emphasis is placed on business systems characteristics, managing information systems projects, prototyping, CASE tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using

a combination of tools and techniques.

**CIS 260 Business Graphics Apps**

2 2 3

Prerequisites: CIS 110 or 111 Corequisites:None

This course utilizes graphics software in a variety of business applications. Topics include terminology, design and evaluation, graphics formats and conversion, practical applications of graphics software, and integration of peripherals. Upon completion, students should be able to create and incorporate graphic designs to enhance business communications.

**CIS 266 Multimedia Design**

2 2 3

Prerequisites: CIS 160 and 162 Corequisites:None

This course prototypes a complete interactive multimedia project using an authoring package. Topics include mapping hyperlinks, advanced design concepts, appropriate evaluation techniques, and user/customer considerations. Upon completion, students should be able to present a complete prototyped project which will be used in advanced courses.

**CIS 267 Multimedia Applications**

2 2 3

Prerequisites: CIS 260 Corequisites:None

This course combines audio, video, text, and graphics technologies to create multimedia applications. Emphasis is placed on digitizing audio; compressing and digitizing video; and using animation, special effects, and technical media to enhance communication. Upon completion, students should be able to produce effective multimedia presentations for a variety of settings, including business, education, and training.

**CIS 268 Multimedia Project**

2 2 3

Prerequisites: CIS 266 Corequisites:None

This course provides an opportunity to complete a significant multimedia project with minimal instructor support. Emphasis is placed on written and verbal communication skills, documentation, presentation, and user training. Upon completion, students should be able to present an operational multimedia system which they have created.

**CIS 274 Network System  
Manager II**

2 2 3

Prerequisites: CIS 174 Corequisites:None

This course is a continuation of CIS 174 focusing on advanced network management, configuration, and installation. Emphasis is placed on server configuration files, startup procedures, server protocol support, memory and performance concepts, and management and maintenance. Upon completion, students should be able to install and upgrade networks and servers for optimal performance. A course number ending with an "N" indicates a Novell Certified course; those ending with an "M"

indicate a Microsoft Certified course.

**CIS 275 Network Management II 2 2 3**

Prerequisites: CIS 175 Corequisites:None

This course is a continuation of CIS 175 focusing on advanced enterprise networks. Topics include directory service tree planning, management distribution and protection, improving network security, auditing the network, printing, networking, and system administration of an Internet node. Upon completion, students should be able to manage client services and network features and optimize network performance. A course number ending with an "N" indicates a Novell Certified course; those ending with an "M" indicate a Microsoft Certified course.

**CIS 276 Helpdesk Analysis &**

**Design 3 0 3**

Prerequisites: CIS 115 and 170

Corequisites: None

This course examines established and evolving methodologies for the analysis, design, and development of a helpdesk system. Emphasis is placed on business systems characteristics, managing information systems projects, prototyping, CASE tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

**CIS 277 Network Design & Imp 2 2 3**

Prerequisites: CIS 275 Corequisites: None

This course focuses on the design, analysis, and integration of a network operating system.

Topics include determination of a directory tree structure and object placement, creation of time synchronization strategy, security, and routing services. Upon completion, students should be able to implement a network design strategy, develop a migration strategy, and create a network implementation schedule. A course number ending with an "N" indicates a Novell Certified course; those ending with an "M" indicate a Microsoft Certified course.

**CIS 279 UNIX System Admin 3 3 4**

Prerequisites: CIS 246 Corequisites:None

This course provides an advanced study of the UNIX operating system for maintaining UNIX systems. Topics include administering user accounts, using back-up utilities, installing and maintaining UNIX file systems, configuring devices, controlling processes, using advanced scripts, and other related topics. Upon completion, students should be able to set up, configure, maintain, and administer a UNIX system.

**CIS 282 Network Technology 3 0 3**

Prerequisites: None Corequisites:None

This course examines concepts of network architecture. Topics include various network types, topologies, transmission methods, media and access control, the OSI model, and the protocols which operate at each level of the model. Upon completion, students should be able to design a network based on the requirements of a company. A course number ending with an "N" indicates a Novell Certified course; those ending with an "M" indicate a Microsoft Certified course.

**CIS 286 Systems Analysis &**

**Design 3 0 3**

Prerequisites: CIS 115 Corequisites:None

This course examines established and evolving methodologies for the analysis, design, and development of a business information system. Emphasis is placed on business systems characteristics, managing information systems projects, prototyping, CASE tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

**CIS 287 Network Support 2 2 3**

Prerequisites: CIS 274 or 275 Corequisites:None

This course provides experience using CD ROM and on-line research tools and hands-on experience for advanced hardware support and troubleshooting. Emphasis is placed on troubleshooting network adapter cards and cabling, network storage devices, the DOS workstation, and network printing. Upon completion, students should be able to analyze, diagnose, research, and fix network hardware problems. A course number ending with an "N" indicates a Novell Certified course; those ending with an "M" indicate a Microsoft Certified course.

**CIS 288 Systems Project 1 4 3**

Prerequisites: CIS 227 or 286 Corequisites:None

This course provides an opportunity to complete a significant systems project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation.

**CIS 289 Operations Project 2 2 3**

Prerequisites: CIS 247 and CSC 135

Corequisites: None

This course provides an opportunity to complete

a significant operations project from the design phase through implementation of a business computer application. Emphasis is placed on the use of VSE/Power (Tm) commands, JCL for tape and VSAM files, and responding to system console messages using vendor manuals. Upon completion, students should be able to complete a multiple-job sequenced project including JCL, commands, data, and operator responses.

**CIS 296 Seminar in Information Systems 0 3 1**

Prerequisites: CIS 110 or 111 Corequisites:None  
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

**CARDIOVASCULAR/VASCULAR INTERVENTIONAL TECHNOLOGY**

**CIT 211 Patient Care 3 0 0 3**

Prerequisites: Enrollment in the Cardiovascular/Vascular Interventional Technology program

Corequisites: None

This course introduces specialized patient care and management, physiological monitoring, and general procedural considerations used within the vascular and cardiovascular environment. Emphasis is placed on patient communication, pressure measurements, ECG, specialized cardiac monitoring, intravenous therapy, sterile technique, infection control, and isolation procedures. Upon completion, students should be able to understand patient care and management and the use and function of physiological monitoring and measurement devices.

**CIT 212 Angio Equip & Supplies 3 0 0 3**

Prerequisites: Enrollment in the Cardiovascular/Vascular Interventional Technology program

Corequisites: None

This course covers the specialized equipment and instrumentation, digital subtraction, and magnification image enhancement techniques used in the cardiovascular/vascular environment. Emphasis is placed on Cine cameras, automatic film changers, intensifying screens, principles of digital imaging, automatic pressure injectors, subtraction, magnification, catheters, guide wires, and needles. Upon completion, students should be able to understand principles and use of angiographic equipment and specialized imaging

techniques used in the cardiovascular/vascular environment.

**CIT 213 Radiographic Pharmacology 3 0 0 3**

Prerequisites: Enrollment in the Cardiovascular/Vascular Interventional Technology program

Corequisites: None

This course is designed to cover medications, contrast media, and emergency complications in the cardiovascular/vascular interventional environment. Emphasis is placed on indications, administration, and adverse reactions to medications and contrast media. Upon completion, students should be able to identify and understand medications and contrast agents in cardiovascular/interventional environments and their desired results.

**CIT 214 Vascular Imaging I 3 0 0 3**

Prerequisites: Enrollment in the Cardiovascular/Vascular Interventional Technology program

Corequisites: None

This course covers angiographic approaches, interventional procedures, anatomy, and imaging techniques for the peripheral, splanchnic, and renal systems. Emphasis is placed on the structure and hemodynamics of the vascular systems, filming procedures, patient positioning and tube angulations, basic pathology, and interventional devices. Upon completion, students should be able to demonstrate knowledge of each of the vascular systems and methods used to visualize this anatomy radiographically.

**CIT 224 Vascular Imaging II 3 0 0 3**

Prerequisites: Enrollment in the Cardiovascular/Vascular Interventional Technology program

Corequisites: None

This course covers angiographic approaches, interventional procedures, anatomy, and imaging techniques for the pulmonary, cardiovascular, and cerebral systems. Emphasis is placed on the structure and hemodynamics of the vascular systems, filming procedures, patient positioning and tube angulations, basic pathology, and interventional devices. Upon completion, students should be able to demonstrate knowledge of each of the vascular systems and methods used to visualize this anatomy radiographically.



**CIT 230 CIT Clinical Practicum I 0 0 21 7**

Prerequisites: Enrollment in the  
Cardiovascular/Vascular  
Interventional Technology program

Corequisites: None

This course provides the opportunity to apply knowledge gained from didactic instruction to the cardiovascular/vascular interventional clinical environment. Emphasis is placed on patient care and positioning, imaging procedures, and image production in angiography within the cardiovascular/vascular interventional environment. Upon completion, students should be able to assume a variety of duties and responsibilities in the cardiovascular/vascular interventional environment.

**CIT 240 CIT Clinical Practicum II 0 0 21 7**

Prerequisites: Enrollment in the  
Cardiovascular/Vascular  
Interventional Technology program

Corequisites: None

This course provides the opportunity to apply knowledge gained from didactic instruction to the cardiovascular/vascular interventional clinical environment. Emphasis is placed on patient care and positioning, imaging procedures, and image production in angiography within the cardiovascular/vascular interventional environment. Upon completion, students should be able to assume a variety of duties and responsibilities in the cardiovascular/vascular interventional environment.

**CIT 250 CIT Clinical Practicum III 0 0 24 8**

Prerequisites: Enrollment in the  
Cardiovascular/Vascular  
Interventional Technology program

Corequisites: None

This course provides the opportunity to apply knowledge gained from didactic instruction to the cardiovascular/vascular interventional clinical environment. Emphasis is placed on patient care and positioning, imaging procedures, and image production in angiography within the cardiovascular/vascular interventional environment. Upon completion, students should be able to assume a variety of duties and responsibilities in the cardiovascular/vascular interventional environment.

**CIT 260 CIT Topics 2 0 0 2**

Prerequisites: Enrollment in the  
Cardiovascular/Vascular  
Interventional Technology program

Corequisites: None

This course integrates aspects of

cardiovascular/interventional technology as practiced in the didactic and clinical settings. Emphasis is placed on content specifications of the ARRT Advanced-Level exam, study skills, and simulated examinations. Upon completion, students should be able to demonstrate an understanding of the topics presented for successful completion of the CIT exam.

**CRIMINAL JUSTICE****CJC 111 Intro to Criminal Justice 3 0 3**

Prerequisites: None Corequisites:None

This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**CJC 112 Criminology 3 0 3**

Prerequisites: None Corequisites:None

This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

**CJC 113 Juvenile Justice 3 0 3**

Prerequisites: None Corequisites:None

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

**CJC 114 Invest. Photography 1 2 2**

Prerequisites: None Corequisites: None

This course covers the operation of various photographic equipment and its application to criminal justice. Topics include using various cameras, proper exposure of film, developing film/prints, and preparing photographic evidence. Upon completion, students should be able to demonstrate and explain the role of photography and proper film exposure and development techniques.



**CJC 121 Law Enforcement Oper 3 0 3**

Prerequisites: None Corequisites:None

This course introduces fundamental law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**CJC 131 Criminal Law 3 0 3**

Prerequisites: None Corequisites:None

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

**CJC 132 Court Proc & Evidence 3 0 3**

Prerequisites: None Corequisites:None

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

**CJC 141 Corrections 3 0 3**

Prerequisites: None Corequisites:None

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**CJC 144 Crime Scene Processing 2 3 3**

Prerequisites: None Corequisites: None

This course introduces the theories and practices of crime scene processing and investigating. Topics include legal considerations at the crime scene, processing indoor and outdoor scenes,

recording, note taking, collection and preservation of evidence and submission to the crime laboratory. Upon completion, the student should be able to evaluate and search various crime scenes and demonstrate the appropriate techniques.

**CJC 145 Crime Scene CAD 2 3 3**

Prerequisites: None Corequisites: None

This course introduces the student to CAD software for crime scenes. Topics include drawing, editing, file management and drafting theory and practices. Upon completion, the students should be able to produce and plot a crime scene drawing.

**CJC 146 Trace Evidence 2 3 3**

Prerequisites: None Corequisites: None

This course provides a study of trace evidence as it relates to forensic science. Topics include collection, packaging, and preservation of trace evidence from crime scenes such as bombings, fires and other scenes. Upon completion, students should be able to demonstrate the fundamental concepts of trace evidence collection, preservation and submission to the crime laboratory.

**CJC 198 Seminar in****Criminal Justice 3 0 3**

Prerequisites: Enrollment in the program

Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions. Course content will include instruction in the basic methodology necessary for doing pertinent research in the areas of criminal justice and the law.

**CJC 211 Counseling 3 0 3**

Prerequisites: None Corequisites:None

This course introduces the basic elements of counseling and specific techniques applicable to the criminal justice setting. Topics include observation, listening, recording, interviewing, and problem exploration necessary to form effective helping relationships. Upon completion, students should be able to discuss and demonstrate the basic techniques of counseling.

**CJC 212 Ethics & Comm Relations 3 0 3**

Prerequisites: None Corequisites:None

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and

norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

**CJC 214 Victimology** 3 0 3  
Prerequisites: None Corequisites:None

This course introduces the study of victims. Emphasis is placed on roles/characteristics of victims, victim interaction with the criminal justice system and society, current victim assistance programs, and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

**CJC 215 Organization & Administration** 3 0 3  
Prerequisites: None Corequisites:None

This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

**CJC 221 Investigative Principles** 3 2 4  
Prerequisites: None Corequisites:None

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

**CJC 222 Criminalistics** 3 0 3  
Prerequisites: None Corequisites:None

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory

analysis of submitted evidence.

**CJC 231 Constitutional Law** 3 0 3  
Prerequisites: None Corequisites:None

The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

**CJC 232 Civil Liability** 3 0 3  
Prerequisites: None Corequisites:None

This course covers liability issues for the criminal justice professional. Topics include civil rights violations, tort liability, employment issues, and other related topics. Upon completion, students should be able to explain civil trial procedures and discuss contemporary liability issues.

**CJC 233 Correctional Law** 3 0 3  
Prerequisites: None Corequisites:None

This course introduces statutory/case law pertinent to correctional concepts, facilities, and related practices. Topics include examination of major legal issues encompassing incarceration, probation, parole, restitution, pardon, restoration of rights, and other related topics. Upon completion, students should be able to identify/discuss legal issues which directly affect correctional systems and personnel.

**CJC 241 Community-Based Corrections** 3 0 3  
Prerequisites: None Corequisites:None

This course covers programs for convicted offenders that are used both as alternatives to incarceration and in post-incarceration situations. Topics include offenders, diversion, house arrest, restitution, community service, probation and parole, including both public and private participation, and other related topics. Upon completion, students should be able to identify/discuss the various programs from the perspective of the criminal justice professional, the offender, and the community.

**CJC 244 Footwear & Tire Imprints** 2 3 3  
Prerequisites: None Corequisites:None

This course provides a study of the fundamental concepts of footwear and tire imprint evidence as related to forensic science. Topics include proper photographic recording, casting, recognition of wear patterns and imprint identification. Upon completion, the student should be able to recognize, record, photograph, and identify



footwear and tire imprints.

**CJC 245 Friction Ridge Analysis 2 3 3**

Prerequisites: None Corequisites: None

This course introduces the basic elements of fingerprint technology and techniques applicable to the criminal justice field. Topics include the history and meaning of fingerprints, pattern types and classification filing sequence, searching and referencing. Upon completion, the students should be able to discuss and demonstrate the fundamental techniques of basic fingerprint technology.

**CJC 246 Adv. Friction Ridge Analysis 2 3 3**

Prerequisites: CJC 245 Corequisites: None

This course introduces the theories and processes of advanced friction ridge analysis. Topics include evaluation of friction ridges, chart preparation, comparative analysis for values determination rendering proper identification, chemical enhancement and AFIS preparation and usage. Upon completion, students must show an understanding of proper procedures for friction ridge analysis through written testing and practical exercises.

**CJC 251 Forensic Chemistry I 3 2 4**

Prerequisites: None Corequisites: None

This course provides a study of the fundamental concepts of chemistry as it relates to forensic science. Topics include physical and chemical properties of substances, metric measurements, chemical changes, elements, compounds, gases, and atomic structure. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of forensic chemistry.

**CJC 252 Forensic Chemistry II 3 2 4**

Prerequisites: CJC 251 Corequisites: None

This course provides a study of specialized areas of chemistry specifically related to forensic science. Topics include properties of light, emission and absorption spectra, spectrophotometry, gas and liquid chromatography, and related topics in organic and biochemistry. Upon completion, students should be able to demonstrate an understanding of specialized concepts in forensic chemistry.

**CJC 293 Selected Topics in Criminal Justice 3 0 3**

Prerequisites: Enrollment in the program

Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to

demonstrate an understanding of the specific area of study. Topics will focus on the portrayal of criminal justice issues in the mass media.

**COOPERATIVE EDUCATION**

**COE 110 World of Work 1 0 0 1**

Prerequisites: None Corequisites: None

This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work.

**COE 111 Co-op Work Experience I 0 0 10 1**

Prerequisites: Enrollment in the program

Corequisites: None

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Enrollment in the course will be by permission of the department chair and will require a 2.0 cumulative GPA.

**COE 112 Co-op Work Experience I 0 0 20 2**

Prerequisites: None Corequisites: None

This course provides work experience with a college approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**COE 115 Work Exp Seminar I 1 0 0 1**

Prerequisites: None

Corequisites: COE 111

This course utilizes case presentation, film observation and characteristic behaviors of each level of development and to derive guidelines for promoting desirable behaviors and coping with undesirable behaviors in young children. Experiences will provide opportunities to develop observations skills, effective techniques and beginning skill adapting to the needs of individual children.

**COE 121 Co-op Work Experience II 0 0 10 1**

Prerequisites: COE 111

Corequisites: COE 125

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with

related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**COE 125 Work Exp Seminar II** 1 0 0 1

Prerequisites: None

Corequisites: COE 121

This course provides for individual and group exploration of activities and materials useful for developing useful learning experiences for preschool children involving manipulation, experimentation and discovery. Students will be encouraged to develop their skill repertoires through shared discussion of their activity implementation.

**COE 131 Co-op Work Experience III** 0 0 10 1

Prerequisites: COE 111 and 121

Corequisites: COE 135

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**COE 135 Work Exp Seminar III** 1 0 0 1

Prerequisites: COE 115 and COE 125

Corequisites: COE 131

This course involves extensive discussion of practices in directing preschool activities. Emphasis will be placed on planning activities that are age and situation appropriate and students will be encouraged to utilize all their relevant work experiences in contributing to the seminar.

**COE 211 Co-op Work Experience IV** 0 0 10 1

Prerequisites: None

Corequisites:None

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

## COMMUNICATIONS

**COM 110\* Intro to Communications** 3 0 3

Prerequisites: None

Corequisites:None

This course provides an overview of basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be

able to explain and illustrate the forms and purposes of human communication in a variety of contexts.

**COM 120\* Interpersonal Comm** 3 0 3

Prerequisites: None

Corequisites:None

This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations.

**COM 231\* Public Speaking** 3 0 3

Prerequisites: None

Corequisites:None

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support.

## COMPUTER SCIENCE

**CSC 120 Computing**

**Fundamentals I**

3 2 4

Prerequisites: MAT 080 or 090

Corequisites: None

This course provides the essential foundation for the discipline of computing and a program of study in computer science, including the role of the professional. Topics include algorithm design, data abstraction, searching and sorting algorithms, and procedural programming techniques. Upon completion, students should be able to solve problems, develop algorithms, specify data types, perform sorts and searches, and use an operating system. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**CSC 129 Technical Programming** 2 3 3

Prerequisites: None

Corequisites: None

This course introduces the analysis of technical problems by using different software tools. Emphasis is placed on solving technical problems using structured programming logic and tools such as a computer language, spreadsheet software, or an advanced programmable calculator. Upon completion,



students should be able to derive solutions to complex technical problems using various software tools.

### **CSC 130 Computing**

#### **Fundamentals II 3 2 4**

Prerequisites: CSC 120 Corequisites:None

This course provides in-depth coverage of the discipline of computing and the role of the professional. Topics include software design methodologies, analysis of algorithm and data structures, searching and sorting algorithms, and file organization methods. Upon completion, students should be able to use software design methodologies and choice of data structures and understand social/ethical responsibilities of the computing professional. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### **CSC 131 Assembly Programming 2 3 3**

Prerequisites: None Corequisites:None

This course introduces assembly language programming with emphasis on program efficiency. Topics include registers, instruction, data types, memory layout, I/O, bit manipulation, debugging, and code considerations. Upon completion, students should be able to create and modify program modules written in an assembly language.

### **CSC 132 BASIC Programming 2 3 3**

Prerequisites: None Corequisites:None

This course is designed to introduce computer programming using the BASIC programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug BASIC language programs.

### **CSC 133 C Programming 2 3 3**

Prerequisites: None Corequisites:None

This course introduces computer programming using the C programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays tables, pointers, and other related topics. Upon completion, students should be able to design, code, test, and debug C language programs.

### **CSC 134 C++ Programming 2 3 3**

Prerequisites: None Corequisites:None

This course introduces object-oriented computer programming using the C++ programming language. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to

design, code, test, and debug C++ language programs. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### **CSC 135 COBOL Programming 2 3 3**

Prerequisites: CIS 110 or CIS 111 and CIS 115

Corequisites: None

This course introduces computer programming using the COBOL programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug COBOL language programs.

### **CSC 136 FORTRAN Programming 2 3 3**

Prerequisites: None Corequisites:None

This course introduces computer programming using the FORTRAN programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, subprograms, and other related topics. Upon completion, students should be able to design, code, test, and debug FORTRAN language programs. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### **CSC 137 Pascal Programming 2 3 3**

Prerequisites: None Corequisites:None

This course introduces structured computer programming using the Pascal programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, and other related topics. Upon completion, students should be able to design, code, test, and debug Pascal language programs.

### **CSC 138 RPG Programming 2 3 3**

Prerequisites: CIS 110 or CIS 111 and CIS 115

Corequisites: None

This course introduces computer programming using the RPG programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug RPG language programs.

### **CSC 139 Visual BASIC Programming 2 3 3**

Prerequisites: None

Corequisites: CIS 110 or CIS 111 and CIS 115

This course introduces event-driven computer programming using the Visual BASIC programming language. Topics include input/output operations, sequence, selection,

iteration, arithmetic operations, arrays, forms, sequential files, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual BASIC language programs.

**CSC 140 Visual C Programming 2 3 3**

Prerequisites: None Corequisites:None

This course introduces event-driven computer programming using the Visual C programming languages. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual C language programs.

**CSC 141 Visual C++ Programming 2 3 3**

Prerequisites: None Corequisites:None

This course introduces event-driven computer programming using the Visual C++ programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual C++ language programs.

**CSC 142 Visual COBOL**

**Programming 2 3 3**

Prerequisites: None Corequisites:None

This course introduces computer programming using the Visual COBOL programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual COBOL language programs.

**CSC 143 Object-Oriented Prog 2 3 3**

Prerequisites: CIS 110 or CIS 111 and CIS 115

Corequisites: None

This course introduces the concepts of object-oriented programming. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, test, debug, and implement objects at the application level using the appropriate environment.

**CSC 145 Visual C/C++**

**Programming 2 3 3**

Prerequisites: CIS 110 or 111 Corequisites:None

This course introduces event-driven programming concepts using the Visual C/C++ and similar programming languages. Topics include forms, data types, classes, inheritance, event handling, standard and bitwise operators,

functions, arrays, pointers, files, and other related topics. Upon completion, students should be able to solve problems related to engineering applications by writing and modifying Visual C/C++ language programs.

**CSC 148 JAVA Programming 2 3 3**

Prerequisites: None

Corequisites: CIS 130

This course introduces computer programming using the JAVA language. Topics include selection, iteration, arithmetic and logical operators, classes, inheritance, methods, arrays, user interfaces, basic applet creation and other related topics. Upon completion, students should be able to design, code, test, debug JAVA language programs.

**CSC 150 Visual RPG**

**Programming 2 3 3**

Prerequisites: None

Corequisites: CIS 130

This course introduces computer programming using the Visual RPG programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual RPG language programs.

**CSC 152 SAS**

**3 2 4**

Prerequisites: CIS 130 Corequisites: None

This course introduces the fundamentals of SAS programming. Emphasis is placed on learning basic SAS commands and statements for solving a variety of data processing applications. Upon completion, students should be able to use SAS data and procedure steps to create SAS data sets, do statistical analysis, and general customized reports.

**CSC 160 Intro to Internet Prog 2 2 3**

Prerequisites: CIS 130 Corequisites: None

This course introduces client-side Internet programming using HTML and Javascript. Topics will include use of frames and tables, use of meta tags, Javascripts techniques for site navigation. Upon completion, the student will be able to write HTML documents that incorporate programming to provide web page organization and navigation functions.

**CSC 190 Intro to Perl Prog 2 2 3**

Prerequisites: None Corequisites: None

This is the first of two courses introducing server-side programming using the Perl language. Topics include basic Perl syntax, variables, expressions, arrays and elementary scripts. Upon completion, students should be able to write basic interactive programs for web-based documents.



**CSC 230 Analysis of Algorithms 3 2 4**

Prerequisites: CSC 130 Corequisites: None

This course covers the design and analysis of algorithms including the concurrency and parallel processing. Topics include non-procedural programming paradigms contrasted with procedural programming, search strategies, and artificial intelligence concepts, including the design and implementation of a multi-faceted software system. Upon completion, students should be able to apply software engineering principles with analysis and design criteria and understand social responsibilities and professional ethics.

**CSC 235 Advanced COBOL 2 3 3**

Prerequisites: CSC 135 Corequisites: None

This course is a continuation of CSC 135 using COBOL with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

**CSC 237 Advanced Pascal 2 3 3**

Prerequisites: CSC 137 Corequisites: None

This course is a continuation of CSC 137 using Pascal with structured programming principles. Emphasis is placed on advanced arrays, file management/processing techniques, data structures, sub-programs, interactive processing, algorithms, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

**CSC 238 Advanced RPG 2 3 3**

Prerequisites: CSC 138 Corequisites: None

This course is a continuation of CSC 138 using RPG with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

**CSC 239 Advanced Visual BASIC 2 3 3**

Prerequisites: CSC 139 Corequisites: None

This course is a continuation of CSC 139 using Visual BASIC with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document

programming solutions.

**CSC 240 Advanced Visual C 2 3 3**

Prerequisites: CSC 140 Corequisites: None

This course is a continuation of CSC 140 using Visual C with structured programming principles. Emphasis is placed on advanced arrays, file management/processing techniques, data structures, functions, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

**CSC 241 Advanced Visual C++ 2 3 3**

Prerequisites: CSC 141 Corequisites: None

This course is a continuation of CSC 141 using Visual C++ with object-oriented programming principles. Emphasis is placed on advanced arrays, file management/processing techniques, data structures, sub-programs, interactive processing, algorithms, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

**CSC 242 Advanced Visual COBOL 2 3 3**

Prerequisites: CSC 142 Corequisites: None

This course is a continuation of CSC 142 using Visual COBOL with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

**CSC 245 Adv C/C++ Programming 2 3 3**Prerequisites: CSC 133, 134, 140, 141, or 145  
Corequisites: None

This course covers additional operations using C dialects primarily relating to operating system interfacing. Topics include advanced file handling, Interprocess Communications, messages, semaphores, inter-language calls, signals, device drivers, sockets, and client/server techniques. Upon completion, students should be able to write and modify programs using advanced functions.

**CSC 246 Realtime Programming 2 3 3**Prerequisites: A high-level or assembly programming language  
Corequisites: None

This course covers the techniques for programming in a realtime environment. Topics include signals, critical sections, polling, interface devices, timing, open and closed loop

control, speed/size optimization, and special considerations for embedded controllers. Upon completion, students should be able to write and modify interface routines used with time-critical applications.

**CSC 247 Adv Assembly Language** 2 3 3  
Prerequisites: CSC 131      Corequisites: None

This course covers additional techniques used in efficient assembly language programs. Topics include memory models, re-entrant code, recursion, ROM-able code, disassembly, patching, device drivers, and interfacing to high-level languages. Upon completion, students should be able to create, patch, and optimize sub-programs for use in solving problems.

**CSC 248 Adv Internet Progr** 2 3 3  
Prerequisites: CSC 134 or CSC 140 or CSC 141  
Corequisites: None

This course covers advanced programming skills required to design Internet applications. Emphasis is placed on programming techniques required to support network applications. Upon completion, students should be able to design, code, debug, and document network-based programming solutions to various real-world problems using an appropriate programming language.

**CSC 250 Advanced Visual RPG** 2 3 3  
Prerequisites: CSC 150      Corequisites:None

This course is a continuation of CSC 150 using Visual RPG with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions to various problems using an appropriate editor/translator.

**CSC 260 Prog in Another Language** 2 2 3  
Prerequisites: CSC 120      Corequisites: None

This course provides in-depth coverage, with applications, of a programming language which was not covered in CSC 120, 130, 220, or 230. Emphasis is placed on using the covered language to develop well-structured programs to solve appropriate problems. Upon completion, students should be able to understand the uses, syntax, and limitations of the language while comparing similarities and differences with other languages.

**CSC 290 Advanced Perl Prog** 2 2 3  
Prerequisites: None      Corequisites: None

This is the second of two courses on Perl programming. Emphasis is placed on using advanced techniques to interact with forms,

update and query databases, create encrypted tables, and employ security and administrative tools. Upon completion, students should be able to write and modify Perl programs using advanced techniques.

**CSC 298 Seminar in Programming** 2 3 3  
Prerequisites: Enrollment in the program

Corequisites: None  
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

**Cardiovascular Sonography**  
**CVS 160 CVS Clinical Ed I** 0 0 15 5

Prerequisites: None  
Corequisites: CVS 163

This course provides active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations. This course is pending State Board Approval.

**CVS 161 CVS Clinical Ed II** 0 0 24 8  
Prerequisites: CVS 160      Corequisites:None

This course provides continued participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations. This course is pending State Board Approval.

**CVS 162 CVS Clinical Ed III** 0 0 15 5  
Prerequisites: CVS 161      Corequisites:None

This course provides continued participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations. This course is pending State Board Approval.

**CVS 163 Echo I** 3 2 0 4  
Prerequisites: None      Corequisites:None

This course covers cardiac anatomy and introduces cardiac scanning techniques. Topics include normal cardiac anatomy, Doppler physics, and 2-D and M-mode imaging. Upon completion, students should be able to perform 2-D and M-mode studies. This course is pending State Board Approval.

**CVS 164 Echo II** 3 2 0 4  
Prerequisites: CVS 163      Corequisites:None

This course is a continuation of CVS 163 with continued study of 2-D and M-mode imaging.



Emphasis is placed on continuous wave, pulsed wave, color, and power Doppler imaging of normal and abnormal cardiac conditions. Upon completion, students should be able to perform and recognize normal and abnormal cardiac studies. This course is pending State Board Approval.

**CVS 165 Intro to Cardiovascular Sonography** 1 3 0 2

Prerequisites: None Corequisites: None

This course provides an introduction to the field of cardiovascular sonography. Topics include applications, sonographic terminology, basic anatomy of the heart and vascular system, and basic scanning skills. Upon completion, students should be able to recognize anatomy of the heart and vascular system and be able to perform preliminary scanning techniques. This course is pending State Board Approval.

**CVS 260 CVS Clinical Ed IV** 0 0 24 8

Prerequisites: CVS 162 Corequisites: None

This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations. This course is pending State Board Approval.

**CVS 261 CVS Clinical Ed V** 0 0 24 8

Prerequisites: CVS 260 Corequisites: None

This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations. This course is pending State Board Approval.

**CVS 279 Cardiovascular Physics** 0 0 15 5

Prerequisites: None Corequisites: None

This course involves the study of ultrasound physics and instrumentation as it applies to cardiovascular imaging. Emphasis is placed on Doppler physics and performing other cardiac studies. Upon completions, students should be able to understand physical principles and instrumentation used in cardiovascular imaging. This course is pending State Board Approval.

## DESIGN DRAFTING

**DDF 211 Design Drafting I** 2 6 4

Prerequisites: DFT 112 Corequisites: None

This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications, and vendor selection. Upon completion, students should be able to research and plan the design

process for a finished product.

**DDF 212 Design Drafting II** 1 6 4

Prerequisites: DDF 211 Corequisites: None

This course stresses the integration of various drafting and design practices. Emphasis is placed on the creation of an original design. Upon completion, students should be able to apply drafting and design procedures to a design project of their choosing.

**DDF 213 Design Drafting III** 1 6 4

Prerequisites: DDF 212 Corequisites: None

This course provides an opportunity to produce all the documentation needed to complete a project for the manufacture of a product. Topics include materials, manufacturing processes, analysis, production drawings, calculations, and specifications. Upon completion, students should be able to research and produce all information needed to complete a project for manufacture.

**DDF 214 Tool Design** 2 4 4

Prerequisites: DDF 212 Corequisites: None

This course introduces the principles of tool design. Topics including gauging, die work, and cost analysis using available catalogs and studies using manufacturing processes. Upon completion, students should be able to use catalogs to identify vendors and prepare working drawings for tooling. This course is a unique concentration requirement of the Drafting and Design concentration in the Mechanical Engineering program.

## DRAFTING

**DFT 111 Technical Drafting I** 2 6 4

Prerequisites: None Corequisites: None

This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices. A portion of the class time will be devoted to computer-aided drafting.

**DFT 111A Technical Drafting I Lab** 0 3 1

Prerequisites: None

Corequisites: DFT 111

This course provides a laboratory setting to enhance basic drafting skills. Emphasis is placed on practical experience that enhance the topics presented in DFT 111. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 111.

**DFT 112 Technical Drafting II** 2 6 4

Prerequisites: DFT 111 Corequisites: None

This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances,

assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings. A portion of the class time will be devoted to computer-aided drafting.

**DFT 112A Technical Drafting II Lab 0 3 1**

Prerequisites: None

Corequisites: DFT 112

This course provides a laboratory setting to enhance advance drafting skills. Emphasis is placed on practical experiences that enhance the topics presented in DFT 112. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 112.

**DFT 119 Basic CAD 1 2 2**

Prerequisites: None Corequisites:None

This course introduces computer-aided drafting software for specific technologies to non-drafting majors. Emphasis is placed on understanding the software command structure and drafting standards for specific technical fields. Upon completion, students should be able to create and plot basic drawings.

**DFT 121 Intro to GD & T 1 2 2**

Prerequisites: None Corequisites:None

This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings.

**DFT 151 CAD I 2 3 3**

Prerequisites: None Corequisites:None

This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

**DFT 152 CAD II 2 3 3**

Prerequisites: DFT 151 Corequisites: None

This course is a continuation of DFT 151. Topics include advanced two-dimensional, three-dimensional, and solid modeling and extended CAD applications. Upon completion, students should be able to generate and manage CAD drawings and models to produce engineering documents.

**DFT 153 CAD III 2 3 3**

Prerequisites: DFT 151 Corequisites: None

This course covers basic principles of three-dimensional CAD wireframe and surface models. Topics include user coordinate systems, three-dimensional viewpoints, three-dimensional

wireframes, and surface components and viewpoints. Upon completion, students should be able to create and manipulate three-dimensional wireframe and surface models.

## ECONOMICS

**ECO 151\* Survey of Economics 3 0 3**

Prerequisites: None

Corequisites:None

This course introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors.

**ECO 251\* Prin of Microeconomics 3 0 3**

Prerequisites: None

Corequisites:None

This course introduces economic analysis of individual, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives.

**ECO 252\* Prin of Macroeconomics 3 0 3**

Prerequisites: None

Corequisites:None

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals.

## EDUCATION

**EDU 111 Early Childhood Cred I 2 0 2**

Prerequisites: None

Corequisites:None

This course introduces early childhood education and the role of the teacher in environments that encourage exploration and learning. Topics include professionalism, child growth and development, individuality, family, and culture. Upon completion, students should be able to identify and demonstrate knowledge of professional roles, major areas of child growth and development, and diverse families.



**EDU 112 Early Childhood Cred II 2 0 2**  
 Prerequisites: EDU 111 Corequisites:None  
 This course introduces developmentally appropriate practices, positive guidance, and standards of health, safety, and nutrition. Topics include the learning environment, planning developmentally appropriate activities, positive guidance techniques, and health, safety, and nutrition standards. Upon completion, students should be able to demonstrate developmentally appropriate activities and positive guidance techniques and describe health/sanitation/nutrition practices that promote healthy environments for children.

**EDU 113 Family/Early Child Cred 2 0 2**  
 Prerequisites: EDU 111 Corequisites:None  
 This course covers business/professional practices for family early childhood providers, developmentally appropriate practices, positive guidance, and methods of providing a safe and healthy environment. Topics include developmentally appropriate practices; health, safety and nutrition; and business and professionalism. Upon completion, students should be able to develop a handbook of policies, procedures, and practices for a family child care home.

**EDU 119 Early Childhood Ed 3 2 4**  
 Prerequisites: None Corequisites:None  
 This course covers the foundations of the education profession, types of programs, professionalism, and planning quality programs for children. Topics include historical foundations, career options, types of programs, professionalism, observational skills, and planning developmentally appropriate schedules, environments, and activities for children. Upon completion, students should be able to demonstrate observational skills, identify appropriate schedules and environments, develop activity plans, and describe influences on the profession.

**EDU 131 Child, Family, & Commun 3 0 3**  
 Prerequisites: EDU 119 or 144  
 Corequisites: None  
 This course covers the relationships between the families, programs for children/schools, and the community. Emphasis is placed on establishing and maintaining positive collaborative relationships with families and community resources. Upon completion, students should be able to demonstrate strategies for effectively working with diverse families and identifying and utilizing community resources.

**EDU 144 Child Development I 3 0 3**  
 Prerequisites: None Corequisites:None  
 This course covers the theories of child development and the developmental sequences of children from conception through the pre-school years for early childhood educators. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development and appropriate experiences for the young child. Upon completion, students should be able to identify developmental milestones, plan experiences to enhance development, and describe appropriate interaction techniques and environments for typical/atypical development.

**EDU 145 Child Development II 3 0 3**  
 Prerequisites: None Corequisites:None  
 This course covers theories of child development and developmental sequences of children from pre-school through middle childhood for early childhood educators. Emphasis is placed on characteristics of physical/motor, social, emotional, and cognitive/language development and appropriate experiences for children. Upon completion, students should be able to identify developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments.

**EDU 146 Child Guidance 3 0 3**  
 Prerequisites: None Corequisites:None  
 This course introduces practical principles and techniques for developmentally appropriate guidance. Emphasis is placed on encouraging self-esteem and cultural awareness, effective communication skills, and direct and indirect guidance techniques and strategies. Upon completion, students should be able to demonstrate strategies which encourage positive social interactions, promote conflict resolution, and develop self-control, self-motivation, and self-esteem in children.

**EDU 151 Creative Activities 3 0 3**  
 Prerequisites: EDU 119 or 144  
 Corequisites: None  
 This course covers creative learning environments, planning and implementing developmentally appropriate experiences, and developing appropriate teaching materials for the classroom. Emphasis is placed on creative activities for children in art, music, movement and physical skills, and dramatics. Upon completion, students should be able to select and evaluate developmentally appropriate learning materials and activities. Students will be expected to furnish some materials required for this class.

**EDU 185 Cognitive & Lang Act** 3 0 3  
 Prerequisites: EDU 145 Corequisites: None  
 This course covers methods of developing cognitive and language/communication skills in children. Emphasis is placed on planning the basic components of language and cognitive processes in developing curriculum activities. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum activities.

**EDU 221 Children with Sp Needs** 3 0 3  
 Prerequisites: EDU 144 and 145  
 Corequisites: None  
 This course introduces working with children with special needs. Emphasis is placed on the characteristics and assessment of children and strategies for adapting the home and classroom environment. Upon completion, students should be able to recognize atypical development, make appropriate referrals, and work collaboratively to plan, implement, and evaluate inclusion strategies.

**EDU 234 Infants, Toddlers, & Twos** 3 0 3  
 Prerequisites: EDU 111 or 144  
 Corequisites: None  
 This course covers the skills needed to effectively implement group care for infants, toddlers, and two-year olds. Emphasis is placed on child development and developmentally appropriate practices. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate a developmentally appropriate curriculum.

**EDU 235 School-Age Dev & Program** 2 0 2  
 Prerequisites: EDU 112 or 119  
 Corequisites: None  
 This course presents developmentally appropriate practices in group care for school-age children. Topics include principles of development, environmental planning, and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for children five to twelve years of age and plan and implement age-appropriate activities.

**EDU 252 Math & Sci Activities** 3 0 3  
 Prerequisites: EDU 151 and 185  
 Corequisites: None  
 This course introduces discovery experiences in math and science. Topics include concepts, facts, phenomena, and skills in each area. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally

appropriate curriculum materials.

**EDU 259 Curriculum Planning** 3 0 3  
 Prerequisites: EDU 112, 113, or 119  
 Corequisites: COE 131 and 135  
 This course covers early childhood curriculum planning. Topics include philosophy, curriculum, indoor and outdoor environmental design, scheduling, observation and assessment, and instructional planning and evaluation. Upon completion, students should be able to assess children and curriculum; plan for daily, weekly, and long-range instruction; and design environments with appropriate equipment and supplies.

**EDU 261 Early Childhood Admin I** 2 0 2  
 Prerequisites: EDU 112 or 119  
 Corequisites: None  
 This course covers the policies, procedures, and responsibilities for the management of early childhood education programs. Topics include implementation of goals, principles of supervision, budgeting and financial management, and meeting the standards for a NC Child Day Care license. Upon completion, students should be able to develop program goals, explain licensing standards, determine budgeting needs, and describe effective methods of personnel supervision. Registration for the course by successful completion of practicums or permission of department chair.

**EDU 262 Early Childhood Admin II** 3 0 3  
 Prerequisites: EDU 261 Corequisites: None  
 This course provides a foundation for budgetary, financial, and personnel management of the child care center. Topics include budgeting, financial management, marketing, hiring, supervision, and professional development of a child care center. Upon completion, students should be able to formulate marketing, financial management, and fund development plans and develop personnel policies, including supervision and staff development plans.

**EDU 263 Dev School-Age Prog** 2 0 2  
 Prerequisites: EDU 112 or 119  
 Corequisites: None  
 This course introduces the methods and procedures for operating a school-age program in either the public or proprietary setting. Emphasis is placed on constructing and organizing the physical environment as well as planning and developing a school-age program. Upon completion, students should be able to plan and develop a quality school-age program.

**EDU 275 Effective Teach Train** 2 0 2  
 Prerequisites: EDU 235 Corequisites: None  
 This course provides specialized training using



an experienced-based approach to learning. Topics include instructional preparation and presentation, student interaction, time management, learning expectations, evaluation, and curriculum principles and planning. Upon completion, students should be able to prepare and present a six-step lesson plan and demonstrate ways to improve students' time-on-task.

**EDU 282 Early Childhood Lit** 3 0 3  
Prerequisites: EDU 145 Corequisites: None

This course covers the history, selection, and integration of literature and language in the early childhood curriculum. Topics include the history and selection of developmentally appropriate children's literature and the use of books and other media to enhance language and literacy in the classroom. Upon completion, students should be able to select appropriate books for storytelling, reading aloud, puppetry, flannel board use, and other techniques.

## **ENGLISH AS A FOREIGN LANGUAGE**

**EFL 091 Composition I** 5 0 5  
Prerequisites: None Corequisites: None

This course introduces basic sentence structure and writing paragraphs. Emphasis is placed on word order, verb tense-aspect system, auxiliaries, word forms, and simple organization and basic transitions in writing paragraphs. Upon completion, students should be able to demonstrate a basic understanding of grammar and ability to write English paragraphs using appropriate vocabulary, organization, and transitions.

## **ENGINEERING**

**EGR 131 Intro To Electronics Tech** 1 2 2  
Prerequisites: None Corequisites: None

This course introduces the basic skills required for electrical/electronics technicians. Topics include soldering/desoldering, safety practices, test equipment, scientific calculators, AWG wire table, the resistor color code, electronic devices, problem solving, and use of hand tools. Upon completion, students should be able to solder/desolder, operate test equipment, apply problem-solving techniques, and use a scientific calculator.

**EGR 285 Design Project** 0 4 2  
Prerequisites: None Corequisites: None

This course provides the opportunity to design and construct an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, construction, testing, and documentation of the

approved project. Upon completion, students should be able to present and demonstrate operational projects.

## **ELECTRICITY**

**ELC 111 Intro to Electricity** 2 2 3  
Prerequisites: None Corequisites: None

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronic majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

**ELC 112 DC/AC Electricity** 3 6 5  
Prerequisites: None Corequisites: None

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

**ELC 113 Basic Wiring I** 2 6 4  
Prerequisites: None Corequisites: None

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

**ELC 114 Basic Wiring II** 2 6 4  
Prerequisites: ELC 113 Corequisites: None

This course provides additional instruction in the application of electrical tools, materials, and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations.

**ELC 115 Industrial Wiring** 2 6 4  
Prerequisites: ELC 113 Corequisites: None

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial

wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

**ELC 117 Motors and Controls 2 6 4**

Prerequisites: ELC 111, 112, or 131

Corequisites: None

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

**ELC 118 National Electrical Code 1 2 2**

Prerequisites: ELC 113 Corequisites: None

This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

**ELC 128 Intro to PLC 2 3 3**

Prerequisites: ELC 113 Corequisites: None

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.

**ELC 131 DC/AC Circuit Analysis 4 3 5**

Prerequisites: None

Corequisites: MAT 121

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation software, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

**ELC 140 Fund of DC/AC Circuit 5 6 7**

Prerequisites: None Corequisites: None

This course covers the principles of DC/AC circuit analysis as applied to electronics. Topics include atomic theory, circuit analysis, components, test equipment, troubleshooting techniques, schematics, diagrams, and other related topics. Upon completion, students should be able to interpret, construct, verify, analyze, and troubleshoot DC/AC circuits in a safe manner.

## **ELECTRONICS**

**ELN 112 Diesel Electronics System 2 6 4**

Prerequisites: None

Corequisites: None

This course introduces electronic theory and applications as used in medium and heavy duty vehicles. Emphasis is placed on the basic function and operation of semiconductor and integrated circuits. Upon completion, students should be able to identify electronic components, explain their use and function, and use meters and flow charts to diagnose and repair systems.

**ELN 131 Electronic Devices 3 3 4**

Prerequisites: None

Corequisites: ELC 112, 131, or 140

This course includes semiconductor-based devices such as diodes, bipolar transistors, FETs, thermistors, and related components. Emphasis is placed on analysis, selection, biasing, and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment.

**ELN 132 Linear IC Applications 3 3 4**

Prerequisites: ELN 131 or BMT 113

Corequisites: None

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, differential amplifiers, instrumentation amplifiers, waveform generators, active filters, PLLs, and IC voltage regulators. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment.

**ELN 133 Digital Electronics 3 3 4**

Prerequisites: None

Corequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC converters, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

**ELN 140 Semiconductor Devices 4 6 6**

Prerequisites: None

Corequisites: None

This course covers semiconductor devices and circuits as they apply to the area of electronic servicing. Topics include semiconductor theory, diodes, transistors, linear integrated circuits, biasing, amplifiers, power supplies, and other related topics. Upon completion, students should be able to construct, verify, analyze, and troubleshoot semiconductor circuits.



**ELN 141 Digital Fundamentals 4 6 6**

Prerequisites: ELN 140 Corequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, logic elements, Boolean algebra, Demorgan's theorem, logic families, flip flops, registers, counters, and other related topics. Upon completion, students should be able to analyze, verify, and troubleshoot digital circuits.

**ELN 142 Video Systems 7 9 10**

Prerequisites: ELN 140 Corequisites: None

This course provides a detailed study of the operation and repair of television, VCR, and other video systems. Topics include the operation, alignment, and repair of video systems. Upon completion, students should be able to troubleshoot, maintain, and repair video systems.

**ELN 229 Industrial Electronics 2 4 4**

Prerequisites: ELC 112, 131, or 140

Corequisites: None

This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices (filters, rectifiers, FET, SCR, Diac, Triac, Op-amps, etc). Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

**ELN 231 Industrial Controls 2 3 3**

Prerequisites: ELC 112, 131, or 140

Corequisites: None

This course introduces the fundamental concepts of solid-state control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret ladder diagrams and demonstrate an understanding of electromechanical and electronic control of rotating machinery.

**ELN 232 Intro to Microprocessors 3 3 4**

Prerequisites: ELN 133 Corequisites: None

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include assembly language programming, bus architecture, bus cycle types, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and

programs using appropriate techniques and test equipment.

**ELN 233 Microprocessor Systems 3 3 4**

Prerequisites: ELN 232 Corequisites: None

This course covers the application and design of microprocessor control systems. Topics include control and interfacing of systems using AD/DA, serial/parallel I/O, communication protocols, and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment.

**ELN 237 Local Area Networks 2 3 3**

Prerequisites: CIS 110 or 111

Corequisites: None

This course introduces the fundamentals of local area networks and their operation in business and computer environments. Topics include the characteristics of network topologies, system hardware (repeaters, bridges, routers, gateways), system configuration, and installation and administration of the LAN. Upon completion, students should be able to install, maintain, and manage a local area network. This course is limited to students currently admitted to the Computer Engineering Technology or Electronics Engineering Technology programs.

**ELN 238 Advanced LANs 2 3 3**

Prerequisites: ELN 237 Corequisites: None

This course covers advanced concepts, tools, and techniques associated with servers, workstations, and overall local area network performance.

Topics include network security and configuration, system performance and optimization, communication protocols and packet formats, troubleshooting techniques, multi-platform integration, and other related topics. Upon completion, students should be able to use advanced techniques to install, manage, and troubleshoot networks and optimize server and workstation performance.

**ELN 241 Consumer Electronics 4 6 6**

Prerequisites: ELC 140

Corequisites: ELN 140

This course covers the installation, maintenance, troubleshooting, and repair of consumer electronic products. Topics include the theory, operation, and maintenance of audio systems and personal communications equipment. Upon completion, students should be able to maintain, troubleshoot, and repair consumer electronic products.

**ELN 243 Communication****Electronics**

2 3 3

Prerequisites: ELC 140

Corequisites: ELN 140

This course covers the installation, maintenance, troubleshooting, and repair of electronic communications equipment. Topics include the theory, operation, and maintenance of electronic communications equipment. Upon completion, students should be able to maintain, troubleshoot, and repair electronic communications equipment.

**ELN 260 Prog Logic Controllers** 3 3 4

Prerequisites: None

Corequisites:None

This course provides a detailed study of PCLC applications, with a focus on design of industrial control circuits using the PLC. Topics include PLC components, memory organization, math instructions, programming documentation, input/output devices, and applying PLCs in the design of industrial control systems. Upon completion, students should be able to design and program a PLC system to perform a wide variety of industrial control functions. This course is limited to students currently admitted to the Electronics Engineering Technology program.

**EMERGENCY MEDICAL****EMS 110 EMT-Basic**

4 6 0 6

Prerequisites: None

Corequisites:None

This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the skills necessary to achieve North Carolina State or National Registry EMT-Basic certification.

**EMS 111 Prehospital Environment** 3 2 0 3

Prerequisites: None

Corequisites:None

This course introduces the prehospital care environment and is required for all levels of EMT certification. Topics include roles, responsibilities, laws, ethics, communicable diseases, hazardous materials recognition, therapeutic communications, EMS systems, and defense tactics. Upon completion, students should be able to demonstrate competence in rules and regulations governing prehospital care and personal protection.

**EMS 120 Intermediate Interventions** 3 3 0 3

Prerequisites: EMS 110 and 111

Corequisites: EMS 121 or 122 and 130 and 131

This course is designed to provide the necessary information for interventions appropriate to the EMT-Intermediate and is required for intermediate certification. Topics include automated external defibrillation, basic cardiac electrophysiology, intravenous therapy,

venipuncture, acid-base balance, and fluids and electrolytes. Upon completion, students should be able to properly establish an IV line, obtain venous blood, utilize AEDs, and correctly interpret arterial blood gases.

**EMS 121 EMS Clinical Practicum I** 0 0 6 2

Prerequisites: EMS 110 and 111

Corequisites: EMS 120, 130, and 131

This course is the initial hospital and field internship and is required for intermediate and paramedic certification. Emphasis is placed on intermediate-level care. Upon completion, students should be able to demonstrate competence with intermediate-level skills.

**EMS 130 Pharmacology I for EMS** 1 3 0 2

Prerequisites: EMS 110

Corequisites: EMS 120, 130, and 131

This course introduces the fundamental principles of pharmacology and medication administration and is required for intermediate and paramedic certification. Topics include terminology, pharmacokinetics, pharmacodynamics, weights, measures, drug calculations, legislation, and administration routes. Upon completion, students should be able to accurately calculate drug dosages, properly administer medications, and demonstrate general knowledge of pharmacology.

**EMS 131 Adv Airway Management** 1 2 0 2

Prerequisites: EMS 110

Corequisites: EMS 120 and 130

This course is designed to provide advanced airway management techniques and is required for intermediate and paramedic certification. Topics include respiratory anatomy and physiology, airway, ventilation, adjuncts, surgical intervention, and rapid sequence intubation. Upon completion, students should be able to properly utilize all airway adjuncts and pharmacology associated with airway control and maintenance.

**EMS 140 Rescue Scene Management** 1 6 0 3

Prerequisites: None

Corequisites:None

This course introduces rescue scene management and is required for paramedic certification. Topics include response to hazardous material conditions, medical incident command, and extrication of patients from a variety of situations. Upon completion, students should be able to recognize and manage rescue operations based upon initial and follow-up scene assessment.

**EMS 150 Emerg Veh & EMS Comm** 1 3 0 2

Prerequisites: None

Corequisites:None

This course examines the principles governing emergency vehicles, maintenance of emergency



vehicles, and EMS communication equipment and is required for paramedic certification. Topics include applicable motor vehicle laws affecting emergency vehicle operation, defensive driving, collision avoidance techniques, communication systems, and information management systems. Upon completion, students should have a basic knowledge of emergency vehicles, maintenance, and communication needs.

**EMS 210 Adv Patient Assessment** 1 3 0 2  
Prerequisites: EMS 120, 121, 130,  
and 131 or 122

Corequisites: None

This course covers advanced patient assessment techniques and is required for paramedic certification. Topics include initial assessment, medical-trauma history, field impression, complete physical exam process, on-going assessment, and documentation skills. Upon completion, students should be able to utilize basic communication skills and record and report collected patient data.

**EMS 220 Cardiology** 2 6 0 4  
Prerequisites: EMS 120, 130, and 131  
Corequisites: None

This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, rhythm interpretation, cardiac pharmacology, and patient treatment. Upon completion, students should be able to certify at the Advanced Cardiac Life Support Provider level utilizing American Heart Association guidelines.

**EMS 222 EMS Hospital Clinical II** 0 0 6 2  
Prerequisites: EMS 122 and COE 111 or EMS 121  
Corequisites: COE 121

This course is a continuation of the hospital clinical required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.

**EMS 232 EMS Hospital Clinical III** 0 0 6 2  
Prerequisites: EMS 222 and COE 121 or EMS 221  
Corequisites: COE 131

This course is a continuation of the hospital clinical required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.

**EMS 235 EMS Management** 2 0 0 2  
Prerequisites: None Corequisites: None  
This course stresses the principles of managing a

modern emergency medical service system. Topics include structure and function of municipal governments, EMS grantsmanship, finance, regulatory agencies, system management, legal issues, and other topics relevant to the EMS manager. Upon completion, students should be able to understand the principles of managing emergency medical service delivery systems.

**EMS 240 Special Needs Patients** 1 3 0 2  
Prerequisites: EMS 120 and 121 or 122, 130,  
and 131

Corequisites: None

This course includes concepts of crisis intervention and techniques of dealing with special needs patients and is required for paramedic certification. Topics include behavioral emergencies, abuse, assault, challenged patients, personal well-being, home care, and psychotherapeutic pharmacology. Upon completion, students should be able to recognize and manage frequently encountered special needs patients.

**EMS 242 EMS Hospital Clinical IV** 0 0 6 2  
Prerequisites: EMS 232 and COE 131 or EMS 231  
Corequisites: COE 211

This course is a continuation of the hospital clinical required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to provide advanced-level patient care as an entry-level paramedic.

**EMS 250 Adv Medical Emergencies** 2 3 0 3  
Prerequisites: EMS 120, 121, 130, and 131  
or 122

Corequisites: None

This course provides in-depth study of medical conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include pulmonology, neurology, endocrinology, anaphylaxis, gastroenterology, toxicology, and environmental emergencies integrating case presentation and emphasizing pharmacotherapeutics. Upon completion, students should be able to recognize and manage frequently encountered medical conditions based upon initial patient impression.

**EMS 260 Adv Trauma Emergencies** 1 3 0 2  
Prerequisites: EMS 120, 121, 130, and 131  
or 122

Corequisites: None

This course provides in-depth study of trauma including pharmacological interventions for conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include hemorrhage control,

shock, burns, and trauma to head, spine, soft tissue, thoracic, abdominal, and musculoskeletal areas with case presentations utilized for special problems situations. Upon completion, students should be able to recognize and manage trauma situations based upon patient impressions and should meet requirements of BTLS or PHTLS courses.

**EMS 270 Life Span Emergencies 2 2 0 3**

Prerequisites: EMS 120, 130, and 131

Corequisites: None

This course, required for paramedic certification, covers medial/ethical/legal issues and the spectrum of age-specific emergencies from conception through death. Topics include gynecological, obstetrical, neonatal, pediatric, and geriatric emergencies and pharmacological therapeutics. Upon completion, students should be able to recognize and treat age-specific emergencies and certify at the Pediatric Advanced Life Support Provider level.

**EMS 280 EMS Bridging Course 2 2 0 3**

Prerequisites: None Corequisites:None

This course is designed to bridge the knowledge gained in a continuing education paramedic program with the knowledge gained in an EMS curriculum program. Topics include patient assessment, documentation, twelve-lead ECG analysis, thrombolytic agents, cardiac pacing, and advanced pharmacology. Upon completion, students should be able to perform advanced patient assessment documentation using the problem-oriented medical record format and manage complicated patients.

**EMS 285 EMS Capstone 1 3 0 2**

Prerequisites: EMS 220, 250, and 260

Corequisites: None

This course provides an opportunity to demonstrate problem-solving skills as a team leader in simulated patient scenarios and is required for paramedic certification. Emphasis is placed on critical thinking, integration of didactic and psychomotor skills, and effective performance in simulated emergency situations. Upon completion, students should be able to recognize and appropriately respond to a variety of EMS-related events.

**ENGLISH**

**ENG 060 Speaking English Well 2 0 2**

Prerequisites: None Corequisites:None

This course is designed to improve conversational skills. Emphasis is placed on practice using fluent standard spoken English. Upon completion, students should be able to converse comfortably in a variety of situations.

**ENG 070 Basic Language Skills 2 2 3**

Prerequisites: None Corequisites:None

This course introduces the fundamentals of standard written English. Emphasis is placed on effective word choice, recognition of sentences and sentence parts, and basic usage. Upon completion, students should be able to generate a variety of sentence types that clearly express ideas.

**ENG 080 Writing Foundations 3 2 4**

Prerequisites: ENG 070 or 075 Corequisites:None

This course introduces the writing process and stresses effective sentences. Emphasis is placed on applying the conventions of written English, reflecting standard usage and mechanics in structuring a variety of sentences. Upon completion, students should be able to write correct sentences and a unified, coherent paragraph.

**ENG 085 Reading & Writing Found 5 0 5**

Prerequisites: ENG 070 and RED 070; or

ENG 075

Corequisites: None

This course uses whole language to develop proficiency in reading and writing for college. Emphasis is placed on applying analytical and critical reading skills to a variety of texts and on introducing the writing process. Upon completion, students should be able to recognize and use various patterns of text organization and compose effective paragraphs.

**ENG 085A Reading & Writing**

**Found Lab**

**0 2 1**

Prerequisites: ENG 070 and RED 070;

or ENG 075

Corequisites: ENG 085

This laboratory provides the opportunity to practice the skills introduced in ENG 085. Emphasis is placed on practical skills for applying analytical and critical reading skills to a variety of texts and on the writing process. Upon completion, students should be able to apply those skills in the production of effective paragraphs.

**ENG 090 Composition Strategies 3 0 3**

Prerequisites: ENG 080 or 085 Corequisites:None

This course provides practice in the writing process and stresses effective paragraphs. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay.

**ENG 090A Comp Strategies Lab** 0 2 1

Prerequisites: ENG 080 or 085

Corequisites: ENG 090

This writing lab is designed to practice the skills introduced in ENG 090. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay.

**ENG 095 Reading & Comp Strategies**

5 0 5

Prerequisites: ENG 080 and RED 080;  
or ENG 085

Corequisites: None

This course uses whole language to strengthen proficiency in reading and writing for college. Emphasis is placed on applying critical reading skills to narrative and expository texts and on using the writing process. Upon completion, students should be able to comprehend, analyze, and evaluate college texts and to compose essays in preparation for college writing.

**ENG 095A Reading & Comp Strat Lab**

0 2 1

Prerequisites: ENG 080 and RED 080;  
or ENG 085

Corequisites: ENG 095

This laboratory provides the opportunity to practice the skills introduced in ENG 095. Emphasis is placed on practical skills for applying critical reading skills to narrative and expository texts and on the writing process. Upon completion, students should be able to apply those skills in the production of effective essays in preparation for college writing.

**ENG 101 Applied Communications I** 3 0 3

Prerequisites: None Corequisites: None

This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace.

**ENG 111\* Expository Writing** 3 0 3Prerequisites: ENG 090 and RED 090;  
or ENG 095

Corequisites: None

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students

should be able to produce unified, coherent, well-developed essays using standard written English. The course will include a unit introducing the research process.

**ENG 112\* Argument-Based****Research**

3 0 3

Prerequisites: ENG 111 Corequisites: None

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style.

**ENG 113\* Literature-Based****Research**

3 0 3

Prerequisites: ENG 111 Corequisites: None

This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically-sound, documented essays and research papers that analyze and respond to literary works.

**ENG 114\* Prof Research &****Reporting**

3 0 3

Prerequisites: ENG 111 Corequisites: None

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations.

**ENG 115 Oral Communication** 3 0 3

Prerequisites: None Corequisites: None

This course introduces the basic principles of oral communication in both small group and public settings. Emphasis is placed on the components of the communication process, group decision-making, and public address. Upon completion, students should be able to demonstrate the principles of effective oral communication in small group and public settings.



**ENG 125 Creative Writing I 3 0 3**

Prerequisites: ENG 111

Corequisites: ENG 112, 113, or 114

This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**ENG 126 Creative Writing II 3 0 3**

Prerequisites: ENG 125 Corequisites:None

This course is designed as a workshop approach for advancing imaginative and literary skills.

Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication.

This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**ENG 131\* Introduction to Literature 3 0 3**

Prerequisites: ENG 111

Corequisites: ENG 112, 113, or 114

This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure, and interpretation. Upon completion, students should be able to analyze and respond to literature.

**ENG 231\* American Literature I 3 0 3**

Prerequisites: ENG 112, 113, or 114

Corequisites: None

This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

**ENG 232\* American Literature II 3 0 3**

Prerequisites: ENG 112, 113, or 114

Corequisites: None

This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

**ENG 241\* British Literature I 3 0 3**

Prerequisites: ENG 112, 113, or 114

Corequisites: None

This course covers selected works in British literature from its beginnings to the Romantic

Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama.

Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

**ENG 242\* British Literature II 3 0 3**

Prerequisites: ENG 112, 113, or 114

Corequisites: None

This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama.

Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

**ENG 262\* World Literature II 3 0 3**

Prerequisites: ENG 112, 113, or 114

Corequisites: None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century to the present.

Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

**ENG 273 African-American Lit 3 0 3**

Prerequisites: ENG 112, 113, or 114

Corequisites: None

This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and respond to selected texts. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**FIRE PROTECTION****FIP 120 Intro to Fire Protection 2 0 2**

Prerequisites: None

Corequisites:None

This course provides an overview of the history, development, methods, systems, and regulations as they apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum, and other related topics. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.

**FIP 124 Fire Prev & Public Ed 3 0 3**

Prerequisites: None

Corequisites:None

This course introduces fire prevention concepts as they relate to community and industrial



operations. Topics include the development and maintenance of fire prevention programs, educational programs, and inspection programs. Upon completion, students should be able to research, develop, and present a fire safety program to a citizens or industrial group.

**FIP 128 Detection & Investigation 3 0 3**

Prerequisites: None Corequisites:None

This course covers procedures for determining the origin and cause of accidental and incendiary fires. Topics include collection and preservation of evidence, detection and determination of accelerants, courtroom procedure and testimony, and documentation of the fire scene. Upon completion, students should be able to conduct a competent fire investigation and present those findings to appropriate officials or equivalent.

**FIP 132 Building Construction 3 0 3**

Prerequisites: None Corequisites:None

This course covers the principles and practices related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse, and other related topics. Upon completion, students should be able to understand and recognize various types of construction and their positive or negative aspects as related to fire conditions.

**FIP 136 Inspections & Codes 3 0 3**

Prerequisites: None Corequisites:None

This course covers the fundamentals of fire and building codes and procedures to conduct an inspection. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches, and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report.

**FIP 140 Industrial Fire Protect 2 0 2**

Prerequisites: None Corequisites:None

This course covers fire protection systems in industrial facilities. Topics include applicable health and safety standards, insurance carrier regulations, other regulatory agencies, hazards of local industries, fire brigade operation, and loss prevention programs. Upon completion, students should be able to prepare a procedure to plan, organize, and evaluate an industrial facility's fire protection.

**FIP 144 Sprinklers & Auto Alarms**

3 2 3

Prerequisites: None Corequisites:None

This course introduces various types of automatic

sprinklers, standpipes, and fire alarm systems. Topics include wet or dry systems, testing and maintenance, water supply requirements, fire detection and alarm systems, and other related topics. Upon completion, students should be able to demonstrate a working knowledge of various sprinkler and alarm systems and required inspection and maintenance.

**FIP 148 Fixed & Port Exting Sys 2 2 3**

Prerequisites: None Corequisites:None

This course provides a study of various types of fixed and portable extinguishing systems, their operation, installation, and maintenance. Topics include applications, testing, and maintenance of Halon, carbon dioxide, dry chemical, and special extinguishing agents in fixed and portable systems. Upon completion, students should be able to identify various types of fixed and portable systems, including their proper application and maintenance.

**FIP 152 Fire Protection Law 2 0 2**

Prerequisites: None Corequisites:None

This course covers fire protection law. Topics include torts, legal terms, contracts, liability, review of case histories, and other related topics. Upon completion, students should be able to discuss laws, codes, and ordinances as they relate to fire protection.

**FIP 160 Fire Protection/Elec 2 0 2**

Prerequisites: None Corequisites:None

This course covers the methods and means of electrical installations and uses as related to fire. Topics include basic electrical theories, wiring methods, electrical components and circuitry, and an introduction to the National Electrical Code. Upon completion, students should be able to demonstrate a basic knowledge of electricity, including its uses, characteristics, and hazards.

**FIP 160A Fire Protection/Elec Lab 0 2 1**

Prerequisites: None

Corequisites: FIP 160

This course provides practical applications to support FIP 160. Topics include switching devices, basic circuits, electrical distribution, and other related topics. Upon completion, students should be able to demonstrate knowledge of basic electrical equipment and hazards as related to fire protection.

**FIP 164 OSHA Standards 2 0 2**

Prerequisites: None Corequisites:None

This course covers public and private sector OSHA work site requirements. Emphasis is placed on accident prevention and reporting, personal safety, machine operation, and hazardous material handling. Upon completion, students should be able to analyze and interpret

specific OSHA regulations and write workplace policies designed to achieve compliance.

**FIP 176 HazMat: Operations 4 0 4**

Prerequisites: None Corequisites:None

This course is designed to increase first responder awareness of the type, nature, physiological effects of, and defensive techniques for mitigation of HazMat incidents. Topics include recognition, identification, regulations and standards, zoning, resource usage, defensive operations, and other related topics. Upon completion, students should be able to recognize and identify the presence of hazardous materials and use proper defensive techniques for incident mitigation.

**FIP 180 Wildland Fire Behavior 3 0 3**

Prerequisites: None Corequisites:None

This course covers the principles of wildland fire behavior and meteorology. Emphasis is placed on fire calculations, fuels, and related weather effects. Upon completion, students should be able to demonstrate and apply fire behavior theories through written and performance evaluations.

**FIP 188 Intro to Wildland Fires 3 2 4**

Prerequisites: None Corequisites:None

This course introduces basic wildland fire suppression functions. Emphasis is placed on the operation of tools, equipment, aircraft, and basic fire suppression methods. Upon completion, students should be able to understand theories in wildland fire suppression and demonstrate them through written and performance evaluations.

**FIP 220 Fire Fighting Strategies 3 0 3**

Prerequisites: None Corequisites:None

This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector. Topics include incident management, fire-ground tactics and strategies, incident safety, and command/control of emergency operations. Upon completion, students should be able to describe the initial incident system as it relates to operations involving various emergencies in fire and non-fire situations.

**FIP 221 Adv Fire Fighting Strat 3 0 3**

Prerequisites: FIP 220 Corequisites:None

This course covers command-level operations for multi-company/agency operations involving fire and non-fire emergencies. Topics include advanced ICS, advanced incident analysis, command-level fire operations, and control of both man made and natural major disasters. Upon completion, students should be able to describe proper and accepted systems for the

mitigation of emergencies at the level of overall scene command.

**FIP 224 Instructional**

**Methodology**

4 0 4

Prerequisites: None

Corequisites:None

This course covers the knowledge, skills, and abilities needed to train others in fire service operations. Topics include planning, presenting, and evaluating lesson plans, learning styles, use of media, communication, and other related topics. Upon completion, students should be able to meet all requirements of NFPA 1040 Fire Service Instructor Level Two.

**FIP 228 Local Govt Finance 2 0 2**

Prerequisites: None Corequisites:None

This course introduces local governmental financial principles and practices. Topics include budget preparation and justification, revenue policies, statutory requirements, taxation, audits, and the economic climate. Upon completion, students should be able to comprehend the importance of finance as it applies to the operation of the department.

**FIP 230 Chem of Hazardous**

**Mat I**

5 0 5

Prerequisites: None

Corequisites:None

This course covers the evaluation of hazardous materials. Topics include use of the periodic table, hydrocarbon derivatives, placards and labels, parameters of combustion, and spill and leak mitigation. Upon completion, students should be able to demonstrate knowledge of the chemical behavior of hazardous materials.

**FIP 231 Chem of Hazardous**

**Mat II**

4 2 5

Prerequisites: FIP 230

Corequisites:None

This course covers hazardous materials characterization, properties, location, handling and response guidelines, hazard survey principles, and other related topics. Topics include radiation hazards, instruments, inspections, and detection of the presence of hazardous materials in industrial/commercial occupancies. Upon completion, students should be able to inspect chemical/radioactive sites and use on-site visits to gasoline and/or LPG storage facilities/chemical plants to develop a pre-plan.

**FIP 232 Hydraulics & Water Dist 2 2 3**

Prerequisites: MAT 115 Corequisites:None

This course covers the flow of fluids through fire hoses, nozzles, appliances, pumps, standpipes, water mains, and other devices. Emphasis is placed on supply and delivery systems, fire flow testing, hydraulics calculations, and other related topics. Upon completion, students should be able to perform hydraulic calculations, conduct



water availability tests, and demonstrate knowledge of water distribution systems.

**FIP 236 Emergency Management 2 0 2**

Prerequisites: None Corequisites:None

This course covers the four phases of emergency management, mitigation, preparedness, response, and recovery. Topics include organizing for emergency management, coordinating for community resources, public sector liability, and the roles of government agencies at all levels. Upon completion, students should be able to demonstrate an understanding of comprehensive emergency management and the integrated emergency management system.

**FIP 240 Fire Service Supervision 2 0 2**

Prerequisites: None Corequisites:None

This course covers supervisory skills and practices in the fire protection field. Topics include the supervisor's job, supervision skills, the changing work environment, managing change, organizing for results, discipline and grievances, and loss control. Upon completion, students should be able to demonstrate an understanding of the roles and responsibilities of the effective fire service supervisor.

**FIP 244 Fire Protection Project 3 0 3**

Prerequisites: None Corequisites:None

This course provides an opportunity to apply knowledge covered in previous courses to employment situations that the fire protection professional will encounter. Emphasis is placed on the development of comprehensive and professional practices. Upon completion, students should be able to demonstrate knowledge of the fire protection service through written and performance evaluations.

**FIP 256 Munic Public Relations 2 0 2**

Prerequisites: None Corequisites:None

This course is a general survey of municipal public relations and their effect on the governmental process. Topics include principles of public relations, press releases, press conferences, public information officers, image surveys, and the effects of perceived service on fire protection delivery. Upon completion, students should be able to manage the public relations functions of a fire service organization.

**FIP 264 Flame Prop & Mat Rating 1 4 3**

Prerequisites: None Corequisites:None

This course covers the role of interior finishes in fires, smoke obscuration and density, flame spread, pyrolysis, and other related topics. Emphasis is placed on testing equipment which includes Rack Impingement, Bench Furnace, and the two-foot tunnel. Upon completion, students should be able to understand the operation of the

testing equipment and compile a reference notebook.

**FIP 276 Managing Fire Services 3 0 3**

Prerequisites: None Corequisites:None

This course provides an overview of fire department operative services. Topics include finance, staffing, equipment, code enforcement, management information, specialized services, legal issues, planning, and other related topics. Upon completion, students should be able to understand concepts and apply fire department management and operations principles.

**FRENCH**

**FRE 111\* Elementary French I 3 0 3**

Prerequisites: None Corequisites:None

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on this development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.

**FRE 112\* Elementary French II 3 0 3**

Prerequisites: FRE 111 Corequisites:None

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate further cultural awareness.

**FUNERAL SERVICES**

**FSE 112 Princ of Funeral Service 3 0 3**

Prerequisites: None Corequisites:None

This course covers the principles of funeral service and various religious and cultural customs of funeral service in the US. Emphasis is placed on Protestant, Catholic, Jewish, and other religious groups and the professional and ethical obligations of the profession. Upon completion, students should be able to demonstrate an understanding of religious and cultural traditions and how various funeral services are conducted.

**FSE 116 Funeral Law and Ethics 3 0 3**

Prerequisites: None Corequisites:None

This course covers fundamentals of mortuary law and ethical considerations relevant to the funeral profession. Emphasis is placed on North Carolina Mortuary Law, OSHA requirements, anatomical donations, vital statistics, and general

law relative to mortuary law. Upon completion, students should be able to demonstrate an understanding of the legal and ethical aspects of funeral service.

**FSE 214 Pathology 3 0 3**

Prerequisites: None Corequisites:None

This course is a general survey of the disease process. Topics include pathological terminology, basic body functions, trauma, disease process, and etiology. Upon completion, students should be able to recognize medical terminology used in completing death certificates and understand the disease process.

**FSE 215 Funeral Home Operations 4 0 4**

Prerequisites: None Corequisites:None

This course covers funeral home operations, including business techniques and effective counseling skills. Topics include establishing a funeral home, choosing and financing a location, building, merchandising, caskets, vaults, planning, and counseling techniques and philosophies. Upon completion, students should be able to understand the proper procedures for operating a funeral home and relate more effectively to those experiencing grief.

## FILM AND VIDEO

**FVP 111 Intro to Film & Video 2 3 3**

Prerequisites: None Corequisites:None

This course is an overview of the film making process from conceptualization to execution and examines film genres in the context of history, theory, creativity, and commerce. Topics include the history of film and video in the US, technical terminology, relationships between various job categories, and the language of film. Upon completion, student should be able to demonstrate a film vocabulary and knowledge of working conditions in the film/video production field.

**FVP 112 Art Dept Operations I 1 4 3**

Prerequisites: None Corequisites:None

This course introduces practical fabrication skills for wood and other materials required to build both props and sets from blueprints, photographs, or sketches. Emphasis is placed on the safe use of hand and power tools, and the skills required for collaborative efforts in set and prop construction. Upon completion, students should be able to demonstrate a working knowledge of the equipment and skills necessary to assist in construction sets and props.

**FVP 113 Grip & Electrical I 1 4 3**

Prerequisites: None Corequisites:None

This course covers various grip/support packages used in different environments for studio and

location. Topics include lighting units, hardware, stands, color media, and electrical theory with emphasis on safety. Upon completion, students should be able to execute basic grip and electrical directions given by the key grip, and/or gaffer.

**FVP 114 Camera & Lighting I 2 3 3**

Prerequisites: None Corequisites:None

This course covers the basic principles of video camera and recorder operations in professional formats, crew protocol and safety, and basic lighting theory and application. Emphasis is placed on terminology, the characteristics of light, basic lighting procedures, and proper procedures of field recording with video equipment. Upon completion, students should be able to demonstrate an understanding of the basic technical terms of camera operation, video recording and lighting equipment.

**FVP 115 Camera & Lighting II 2 3 3**

Prerequisites: FVP 114 Corequisites:None

This course offers advanced principles of video camera and recorder operations and introduces students to film formats and equipment as well as advanced lighting theory applications. Emphasis is placed on terminology, lighting for effect, and color correction. Upon completion, students should be able to demonstrate an understanding of camera terms and equipment, lighting theory and applications, and assist on studio and location shoots.

**FVP 116 Sound Operations 2 3 3**

Prerequisites: None Corequisites:None

This course provides an overview of sound theory, methods, and technologies for location and studio recording, and hands-on work in location sound gathering. Emphasis is placed on terminology, protocol, cabling, trouble-shooting, mixing skills and safety aspects associated with hands-on work in sound gathering. Upon completion, students should be able to demonstrate an understanding of sound theory and terminology and assist professionals in sound gathering in both film and audio production.

**FVP 117\*\* Make-up & Wardrobe 2 3 3**

Prerequisites: None Corequisites:None

This course covers talent presentation for camera including period and genre make-up styles, materials and methods of fabrication. Emphasis is placed on understanding the wardrobe department, make-up application, prosthetics and special effects make-up with emphasis on safety, hygiene, durability and continuity. Upon completion, students should understand the functions of the wardrobe department and



demonstrate competence in the use of various make-up applications.

**FVP 118\*\* A-V for Institutions 2 3 3**

Prerequisites: None Corequisites: None

This course covers educational and business applications of video, audio, and computers and the operation of various telecommunications equipment. Emphasis is placed on safe operation and handling of different audio and video communication systems and correct design of systems and space. Upon completion, students should be able to set up, operate, and troubleshoot telecommunications systems in various institutional environments.

**FVP 211\*\* Continuity and Locations 2 3 3**

Prerequisites: FVP 111, FVP 115, FVP 116, and FVP 120

Corequisites: None

This course introduces students to camera and script continuity as well as the necessary skills and technical vocabulary associated with location scouting. Emphasis is placed on the technical terms, protocol, and industry-standard forms, note taking, as well as still photography, location contracts and forms. Upon completion, students should be able to assist above-the-line industry personnel prior to and during production as well as assist in all aspects of selecting and securing suitable shooting sites.

**FVP 212\*\* Production Techniques I 1 12 5**

Prerequisites: FVP 111, FVP 115, FVP 116, and FVP 120

Corequisites: None

This course provides experience working in a variety of crew positions with both student and professional productions and covers advanced film production concepts. Emphasis is placed on successful interaction with other advanced students and/or professionals as well as competency in advanced film production concepts. Upon completion, students should be able to demonstrate professional skills needed to pursue careers in the film and video industry.

**FVP 213\*\* Production Techniques II 1 12 5**

Prerequisites: FVP 212 Corequisites: None

This course provides experience working in a variety of crew positions with both student and professional productions and covers advanced film production concepts. Emphasis is placed on successful interaction with other advanced students and/or professionals as well as competency in advanced film production concepts. Upon completion, students should be able to demonstrate professional skills needed to pursue careers in key positions in the film and video industry.

**FVP 215\*\* Production Management 2 3 3**

Prerequisites: None

Corequisites: FVP 238

This course emphasizes the activity of script breakdown in pre-production as well as the activities of the production office in both the production and post-production stages. Emphasis is placed on procedures, use of industry standard forms and software, as well as the functions and practices of the production office. Upon completion, students should be able to demonstrate the people and technical skills necessary to assist above-the-line professionals in all types of film and video production.

**FVP 220\*\* Editing I 2 3 3**

Prerequisites: CIS 110 and FVP 111 and FVP 115 and FVP 116

Corequisites: None

This course covers film and video editing from traditional methods to digital non-linear systems and basic film lab and transfer facility procedures. Topics include terminology, technologies, aesthetics, basic picture-only editing skills; and the editor's role augmented by hands-on experience. Upon completion, students should be able to use editing equipment and basic digitizing, logging, and picture only editing skills.

**FVP 221\*\* Editing II 2 3 3**

Prerequisites: FVP 220 Corequisites: None

This course covers editing in the digital environment, starting from the camera negative through the transfer, the non-linear digital edit and going back to negative matching. Topics include terminology, technologies, aesthetics, advanced sound and picture editing skills, and the editor's role augmented by hands-on experience. Upon completion, students should be able to demonstrate proficiency in using editing equipment and sound and picture editing skills.

**FVP 227\*\* Multimedia Production 2 3 3**

Prerequisites: None Corequisites: None

This course covers technical terms used in the multimedia industry and introduces skills related to digital manipulation of audio and video materials. Emphasis is placed on technical terms used in multimedia work and integration of sound, video, graphics, and text into a single production. Upon completion, students should be able to define technical terms in multimedia work and work with a variety of computer hardware and software.

**FVP 238\*\*Software Apps for FVP 2 3 3**

Prerequisites: None Corequisites:None

This course introduces the use of industry standard computer software unique to the motion picture industry using personal computers. Emphasis is placed on hands-on work with budgeting and scheduling software and in facilitating the relationship between the technical crew and the script. Upon completion, students should be able to assist with script breakdown for budgeting and scheduling and work with that information in computer-based formats.

**GRAPHIC ARTS**

**GRA 110 Graphic Arts Orientation 2 0 2**

Prerequisites: None Corequisites:None

This course covers the history, development, and commercial applications of the major printing processes. Topics include offset lithography, screen printing, intaglio, relief printing, and emerging technologies. Upon completion, students should be able to demonstrate an understanding of the major characteristics, advantages, and disadvantages of each process.

**GRA 112 Graphics Problem Solving 2 0 2**

Prerequisites: None Corequisites:None

This course covers computations used in graphic arts production. Topics include measurement systems, ratios and scaling, and paper-cutting calculations. Upon completion, students should be able to apply mathematical skills to problem solving in graphic arts and imaging production.

**GRA 121 Graphic Arts I 2 4 4**

Prerequisites: None Corequisites:None

This course introduces terminology, tools and materials, procedures, and equipment used in graphic arts production. Topics include copy preparation and pre-press production relative to printing. Upon completion, students should be able to demonstrate an understanding of graphic arts production.

**GRA 130 Print Career Exploration 1 0 1**

Prerequisites: None Corequisites:None

This course introduces employment opportunities and requirements in the graphic arts and imaging technology fields. Topics include career choices, operations, graphic arts businesses, and related business issues. Upon completion, students should be able to demonstrate an understanding of the graphic arts field and consider an appropriate career specialization.

**GRA 151 Computer Graphics I 1 3 2**

Prerequisites: None Corequisites:None

This course introduces the use of hardware and software for production and design in graphic arts. Topics include graphical user interface and current industry uses such as design, layout,

typography, illustration, and imaging for production. Upon completion, students should be able to understand and use the computer as a fundamental design and production tool. This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology curriculum.

**GRA 152 Computer Graphics II 1 3 2**

Prerequisites: GRA 151 Corequisites:None

This course covers advanced design and layout concepts utilizing illustration, page layout, and imaging software in graphic arts. Emphasis is placed on enhancing and developing the skills that were introduced in GRA 151. Upon completion, students should be able to select and utilize appropriate software for design and layout solutions.

**GRA 153 Computer Graphics III 1 3 2**

Prerequisites: GRA 152 Corequisites:None

This course is a continuation of GRA 152. Emphasis is placed on advanced computer graphics hardware and software applications. Upon completion, students should be able to demonstrate competence in selection and utilization of appropriate software for specialized applications.

**GRA 154 Computer Graphics IV 1 3 2**

Prerequisites: GRA 153 Corequisites:None

This course is a continuation of GRA 153. Emphasis is placed on advanced techniques using a variety of hardware and software applications to produce complex projects. Upon completion, students should be able to use electronic document production tools.

**GRA 221 Graphic Arts II 2 4 4**

Prerequisites: GRA 121 and 151

Corequisites: None

This course is a continuation of GRA 121. Topics include multi-color image preparation, pre-press production, control of close/hairline register in image assembly and press operation, and post-press procedures. Upon completion, students should be able to demonstrate competence in all phases of graphic arts production.

**GRA 222 Graphic Arts III 2 4 4**

Prerequisites: GRA 221 and GRA 152

Corequisites: None

This course is a continuation of GRA 221. Topics include advanced electronic pre-press, press operation, and post-press procedures. Upon completion, students should be able to demonstrate competence in all phases of advanced graphic arts production.



**GRA 255 Image Manipulation I 1 3 2**

Prerequisites: GRA 151 or GRD 151

Corequisites: None

This course covers applications associated with electronic image manipulation, including color correction, color separation, special effects, and image conversion. Topics include image-capturing hardware, image-processing software, and output options. Upon completion, students should be able to utilize hardware and software to acquire, manipulate, and output images to satisfy design and production.

**GRA 256 Image Manipulation II 1 3 2**

Prerequisites: GRA 255 Corequisites:None

This course covers electronic color separation and its relationship to multi-color printing. Topics include color theory, separation, color matching, proofing, and output of process and spot color images. Upon completion, students should be able to use hardware and image processing software to produce color separations and proofs for various printing processes.

**GRA 257 Image Manipulation III 1 3 2**

Prerequisites: GRA 153 and GRA 256

Corequisites: None

This course is a continuation of GRA 256. Emphasis is placed on producing quality color separations through image manipulation, gray component replacement/undercolor removal, dot-gain compensation, and color correction. Upon completion, students should be able to use hardware and software to produce color separations that have been adjusted to meet tolerance of printing production equipment.

**GRAPHIC DESIGN****GRD 141 Graphic Design I 2 4 4**

Prerequisites: None Corequisites:None

This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects. This course is limited to the students currently admitted to the Graphic Arts and Imaging Technology curriculum.

**HEALTH CARE TECHNOLOGY****HCT 101 Health Care Technology 6 2 6 9**

Prerequisites: High school diploma or GED and currently listed as NA I with State of North Carolina

Corequisites: None

This course covers the basic skills necessary for employment as a multi-skilled health care worker. Topics include skills necessary for

listing as a Nursing Assistant II, basic clerical and dietary functions, communication, medical terminology, and quality control principles.

Upon completion, students should be able to perform a variety of skills and assist licensed health care providers.

**HCT 102 Basic Phlebotomy and EKG**

1 2 3 3

Prerequisites: None

Corequisites: HCT 101

This course covers the basic skills necessary for performing venipuncture, drawing blood specimens, and performing basic 12-lead electrocardiograms. Topics include venipuncture and finger stick techniques, requirements for common specimen collection, and obtaining as 12-lead EKG. Upon completion, students should be able to perform phlebotomy and EKG skills.

**HCT 103 Environmental Maintenance**

1 2 3 3

Prerequisites: None

Corequisites: HCT 101

This course covers the principles of maintaining a safe the therapeutic environment in a health care agency. Topics include quality control, set up and operation of common medical equipment, and necessary housekeeping and maintenance functions at the unit level. Upon completion, students should be able to manage materials and equipment and perform housekeeping and maintenance functions common to health care agencies.

**HCT 104 Restorative Care**

1 2 3 3

Prerequisites: None

Corequisites: HCT 101

This course covers the principles of move, gait, and restoration of function. Topics include range of motion across the life span, improving gait and the ability to transfer, and the use of common assistive devices. Upon completion, students should be able to assist with implementing a plan of care for strengthening muscles, improving mobility, and facilitating transfer.

**HCT 105 Basic Respiratory Skills 1 2 3 3**

Prerequisites: None

Corequisites: HCT 101

This course covers the basics of oxygenation and ventilation and principles of common therapy to improve oxygenation and ventilation. Topics include common diagnostic procedures and therapeutic modalities used in respiratory care. Upon completion, students should be able to set up and maintain oxygen, perform peak flow diagnostic tests, collect sputum specimens.

## HEAVY EQUIPMENT

### HET 110 Diesel Engines 3 9 6

Prerequisites: None Corequisites:None

This course introduces theory, design, terminology, and operating adjustments for diesel engines. Emphasis is placed on safety, theory of operation, inspection, measuring, and rebuilding diesel engines according to factory specifications. Upon completion, students should be able to measure, diagnose problems, and repair diesel engines.

### HET 112 Diesel Electrical Sys 3 6 5

Prerequisites: None Corequisites:None

This course introduces electrical theory and applications as they relate to diesel powered equipment. Topics include lighting, accessories, safety, starting, charging, instrumentation, and gauges. Upon completion, students should be able to follow schematics to identify, repair, and test electrical circuits and components.

### HET 114 Power Trains 3 6 5

Prerequisites: None Corequisites:None

This course introduces power transmission devices. Topics include function and operation of gears, chains, clutches, planetary gears, drive lines, differentials, and transmissions. Upon completion, students should be able to identify, research specifications, repair, and adjust power train components.

### HET 115 Electronic Engines 2 3 3

Prerequisites: None Corequisites:None

This course introduces the principles of electronically controlled diesel engines. Emphasis is placed on testing and adjusting diesel engines in accordance with manufacturers' specifications. Upon completion, students should be able to diagnose, test, and calibrate electronically controlled diesel engines.

### HET 116 Air Cond/Diesel Equip 1 2 2

Prerequisites: None Corequisites:None

This course provides a study of the design, theory, and operation of heating and air conditioning systems in newer models of medium and heavy duty vehicles. Topics include component function, refrigerant recovery, and environmental regulations. Upon completion, students should be able to use proper techniques and equipment to diagnose and repair heating/air conditioning systems according to industry standards.

### HET 119 Mechanical Transmissions 2 2 3

Prerequisites: None Corequisites:None

This course introduces the operating principles of mechanical medium and heavy duty truck transmissions. Topics include multiple counter shafts, power take-offs, sliding idler clutches, and friction clutches. Upon completion, students

should be able to diagnose, inspect, and repair mechanical transmissions.

### HET 125 Preventive Maintenance 1 3 2

Prerequisites: None Corequisites:None

This course introduces preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Topics include preventive maintenance schedules, services, DOT rules and regulations, and roadability. Upon completion, students should be able to set up and follow a preventive maintenance schedule as directed by manufacturers.

### HET 230 Air Brakes 1 2 2

Prerequisites: None Corequisites:None

This course introduces the operation and design of air braking systems used on trucks. Topics include safety, governors, compressors, and supporting systems. Upon completion, students should be able to diagnose, disassemble, inspect, repair, and reassemble air brake systems.

### HET 233 Suspension and Steering 2 4 4

Prerequisites: None Corequisites:None

This course introduces the theory and principles of medium and heavy duty steering and suspension systems. Topics include wheel and tire problems, frame members, fifth wheel, bearings, and coupling systems. Upon completion, students should be able to troubleshoot, adjust, and repair suspension and steering components on medium and heavy duty vehicles.

## HISTORY

### HIS 111\* World Civilizations I 3 0 3

Prerequisite: None Corequisites:None

This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations.

### HIS 112\* World Civilizations II 3 0 3

Prerequisite: None Corequisites:None

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations.

### HIS 121\* Western Civilization I 3 0 3

Prerequisites: None Corequisites:None

This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian



institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization.

**HIS 122\* Western Civilization II 3 0 3**

Prerequisites: None Corequisites:None

This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization.

**HIS 131\* American History I 3 0 3**

Prerequisites: None Corequisites:None

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history.

**HIS 132\* American History II 3 0 3**

Prerequisites: None Corequisites:None

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War.

**HIS 151 Hispanic Civilization 3 0 3**

Prerequisite: None Corequisites:None

This course surveys the cultural history of Spain and its impact on the New World. Topics include Spanish and Latin American culture, literature, religion, and the arts. Upon completion, students should be able to analyze the cultural history of Spain and Latin America. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**HIS 251 English History I 3 0 3**

Prerequisite: None Corequisites:None

This course traces the political, social, and economic development of England to the Elizabethan period. Topics include the early development of England, the Norman conquest, medieval society, and Elizabethan England. Upon completion, students should be able to

analyze significant political, socioeconomic, and cultural developments in early English history. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**HIS 252 English History II 3 0 3**

Prerequisite: None Corequisites:None

This course traces the political, social, and economic development of England from the Elizabethan period to the present. Topics include imperialism, industrial development, civil wars, and world wars. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in English history from Elizabethan England to the present. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**HEALTH INFORMATION**

**HIT 110\*\* Health Info Orientation 2 0 0 2**

Prerequisite: None Corequisites:None

This course introduces health information management and its role in health care delivery systems. Emphasis is placed on the role and responsibilities of health information professionals in a variety of settings. Upon completion, students should be able to demonstrate an understanding of health information management and health care organizations, professions, and trends.

**HIT 112\*\* Health Law & Ethics 3 0 0 3**

Prerequisite: None Corequisites:None

This course covers the impact of legal issues on health information management and provides an overview of the judicial system and legislative process. Topics include confidentiality, release of information, record retention, authentication, informed consent, subpoenaed information, security of computerized health information, liability, and legislative trends. Upon completion, students should be able to respond appropriately to requests for health information.

**HIT 114\*\* Record Systems/Standards 2 3 0 3**

Prerequisite: None Corequisites:None

This course covers basic concepts and techniques for managing and maintaining health record systems. Topics include health record content, qualitative analysis, format, record control, storage, retention, forms design/control, indices and registers, and numbering and filing systems. Upon completion, students should be able to demonstrate an understanding of health record systems, including their maintenance and control.

**HIT 122\*\* Directed Practice I** 0 0 3 1

Prerequisite: None Corequisites:None

This course provides supervised clinical experience in health care settings. Emphasis is placed on practical application of curriculum concepts to the health care setting. Upon completion, students should be able to apply health information theory to health care facility practices.

**HIT 124\*\* Directed Practice II** 1 0 3 2

Prerequisite: None Corequisites:None

This course provides supervised clinical experience in health care settings. Emphasis is placed on practical application of curriculum concepts to the health care setting. Upon completion, students should be able to apply health information theory to health care facility practices.

**HIT 210\*\* Health Care Statistics** 3 2 0 4

Prerequisite: MAT 110 or 140

Corequisites: None

This course covers maintenance, compilation, analysis, and presentation of health care statistics. Topics include basic statistical principles, morbidity and mortality, commonly computed hospital rates, uniform reporting requirements, and selection and construction of data displays. Upon completion, students should be able to calculate morbidity, mortality, and commonly computed hospital rates; comply with inform reporting requirements; and analyze/present statistical data.

**HIT 212\*\* Coding/Classification I** 3 3 0 4

Prerequisite: None Corequisites:None

This course is the first of a two-course sequence which provides a foundation in coding and classification systems in a variety of health care settings. Emphasis is placed on ICD-9-CM coding conventions, rules, methodology and sequencing, data sets, documentation requirements, information indexing and retrieval, quality control, and coding resources. Upon completion, students should be able to apply coding principles to correctly assign ICD-9-CM.

**HIT 214\*\* Coding/Classification II** 3 3 0 4

Prerequisite: HIT 212 Corequisites:None

This course is the second of a two-course sequence which continues the study of coding and classification systems in a variety of health care settings. Topics include classification and coding systems emphasizing ICD-9-CM, HCPCS/CPT-4, reimbursement/billing systems, encoders/groupers, case mix management, and coding's relationship to managed care. Upon completion, students should be able to apply coding principles to correctly assign ICD-9CM

and HCPCS/CPT-4 codes and apply systems to optimize reimbursement.

**HIT 216\*\* Quality Management** 2 2 0 3

Prerequisite: None Corequisites:None

This course introduces principles of quality improvement, utilization management, and risk management in health care. Topics include the continuous quality improvement philosophy, including tools, data analysis/application, and related committee functions; utilization management and risk management; and credentialing, accreditation and regulation. Upon completion, students should be able to apply performance improvement techniques, analyze/display data, apply level of care criteria, and participate in risk management activities.

**HIT 220\*\* Computers in****Health Care**

1 2 0 2

Prerequisite: CIS 110 or 111 Corequisites:None

This course covers basic computer system architecture, file structure, and design for health care settings. Topics include system analysis, design, security, and selection for a variety of hardware environments. Upon completion, students should be able to design, implement, evaluate, and maintain automated information systems in health care.

**HIT 222\*\* Directed Practice III** 0 0 6 2

Prerequisite: None Corequisites:None

This course provides supervised clinical experience in health care settings. Emphasis is placed on practical application of curriculum concepts to the health care setting. Upon completion, students should be able to apply health information theory to health care facility practices.

**HIT 224\*\* Directed Practice IV** 1 0 6 3

Prerequisite: None Corequisites:None

This course provides supervised clinical experience in health care settings. Emphasis is placed on practical application of curriculum concepts to the health care setting. Upon completion, students should be able to apply health information theory to health care facility practices.

**HIT 226\*\* Principles of Disease** 3 0 0 3

Prerequisite: BIO 166 or 169

Corequisites: None

This course covers disease etiology and organ system involvement, including physical signs and symptoms, prognoses, and common complications and their management. Topics include basic microbiology, basic pharmacology, and principles of disease. Upon completion, students should be able to relate disease processes to etiology, physical signs and



symptoms, prognosis, and common complications and their management.

**HIT 280\*\* Professional Issues** 2 0 0 2

Prerequisite: HIT 212

Corequisites: HIT 214

This course provides a comprehensive discussion of topics common to the health information profession. Emphasis is placed on application of professional competencies, job search tools, and preparation for the certification examination. Upon completion, students should be able to demonstrate competence in entry-level domains, tasks, and subtasks for health information technologies.

## **HORTICULTURE**

**HOR 112 Landscape Design I** 2 3 3

Prerequisites: HOR 160 and 260

Corequisites: None

This course covers landscape principles and practices for residential and commercial sites. Emphasis is placed on drafting, site analysis, and common elements of good design, plant material selection, and proper plant utilization. Upon completion, students should be able to read, plan, and draft a landscape design.

**HOR 114 Landscape Construction** 2 2 3

Prerequisites: None Corequisites:None

This course introduces the design and fabrication of landscape structures/features. Emphasis is placed on safety, tool identification and use, material selection, construction techniques, and fabrication. Upon completion, students should be able to design and construct common landscape structures/features.

**HOR 116 Landscape Management** 2 2 3

Prerequisites: None Corequisites:None

This course covers information and skills necessary to analyze a property and develop a management schedule. Emphasis is placed on property measurement, plant condition, analysis of client needs, and plant culture needs. Upon completion, students should be able to analyze a property, develop management schedules, and implement practices based on client needs.

**HOR 118 Equipment Op & Maint** 1 3 2

Prerequisites: None Corequisites:None

This course covers the proper operation and maintenance of selected equipment used in horticulture. Emphasis is placed on the maintenance, minor repairs, safety devices, and actual operation of selected equipment. Upon completion, students should be able to design a maintenance schedule, service equipment, and demonstrate safe operation of selected equipment.

**HOR 124 Nursery Operations** 2 3 3

Prerequisites: None Corequisites:None

This course covers nursery site and crop selection, cultural practices, and production and marketing methods. Topics include site considerations, water availability, equipment, irrigation, fertilization, containers, media, and pest control. Upon completion, students should be able to design and implement a nursery operation and grow and harvest nursery crops.

**HOR 142 Fruit & Vegetable Prod** 1 2 2

Prerequisites: None Corequisites:None

This course introduces the principles and techniques of growing fruits and field-grown vegetables. Topics include site selection, proper varietal selection, nutritional values, cultural techniques, harvesting and marketing, and insect and disease control. Upon completion, students should be able to demonstrate an understanding of the principles related to the production of selected fruits and vegetables.

**HOR 160 Plant Materials I** 2 2 3

Prerequisites: None Corequisites:None

This course covers identification, culture, characteristics, and use of plants. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

**HOR 162 Applied Plant Science** 2 2 3

Prerequisites: None Corequisites:None

This course introduces the basic concepts of botany as they apply to horticulture. Topics include nomenclature, physiology, morphology, and anatomy as they apply to plant culture. Upon completion, students should be able to apply the basic principles of botany to horticulture.

**HOR 164 Hort Pest Management** 2 2 3

Prerequisites: None Corequisites: None

This course covers the identification and control of plant pests including insects, diseases, and weeds. Topics include pest identification and chemical regulations, safety, and pesticide application. Upon completion, students should be able to meet the requirements for North Carolina Commercial Pesticide Ground Applicators license.

**HOR 166 Soils & Fertilizers** 2 2 3

Prerequisites: None Corequisites:None

This course covers the physical and chemical properties of soils and soil fertility and management. Topics include soil formation, classification, physical and chemical properties,

testing, fertilizer application, and other amendments. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media.

**HOR 168 Plant Propagation** 2 2 3  
Prerequisites: None Corequisites:None

This course is a study of sexual and asexual reproduction of plants. Emphasis is placed on seed propagation, grafting, stem and root propagation, micro-propagation, and other propagation techniques. Upon completion, students should be able to successfully propagate ornamental plants.

**HOR 170 Hort Computer Apps** 1 3 2  
Prerequisites: None Corequisites:None

This course introduces computer programs as they apply to the horticulture industry. Emphasis is placed on applications of software for plant identification, design, and irrigation. Upon completion, students should be able to use computer programs in horticultural situations.

**HOR 213 Landscape Design II** 2 2 3  
Prerequisites: HOR 112 Corequisites: None

This course covers residential and commercial landscape design, cost analysis, and installation. Emphasis is placed on job cost estimates, installation of the landscape design, and maintenance techniques. Upon completion, students should be able to read landscape design blueprints, develop cost estimates, and implement the design.

**HOR 235 Greenhouse Production** 2 2 3  
Prerequisites: None Corequisites:None

This course covers the production of greenhouse crops. Emphasis is placed on product selection and production based on market needs and facility availability, including record keeping. Upon completion, students should be able to select and make production schedules to successfully produce greenhouse crops.

**HOR 251 Insects & Diseases** 2 2 3  
Prerequisites: None Corequisites:None

This course introduces insects and diseases of economic importance to horticultural crops. Topics include insect life cycles and identifying characteristics; plant diseases, including their signs and symptoms; control methods; and insect scouting for IPM. Upon completion, students should be able to demonstrate an understanding of insect and disease identification, collection, and control.

**HOR 255 Interiorscapes** 1 2 2  
Prerequisites: None Corequisites:None

This course covers plant selection, design, and management for interior settings. Topics include tropical plant identification, cultural

requirements, insect and disease identification and control, and design and management requirements for interior plants. Upon completion, students should be able to design, install, and manage plants in interior settings.

**HOR 260 Plant Materials II** 2 2 3  
Prerequisites: HOR 160 Corequisites: None

This course is a continuation of HOR 160 and covers additional plants. Emphasis is placed on reinforcement of skills and the introduction of additional plants. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

**HOR 298 Seminar in Landscape Construction** 2 2 3  
Prerequisites: Enrollment in the program and HOR 114

Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

**HUMAN SERVICES**

**HSE 110 Intro to Human Services** 2 2 3  
Prerequisites: None Corequisites:None

This course introduces the human services field, including the history, agencies, roles, and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills, and roles of the human services worker. This course is pending State Board Approval.

**HSE 112 Group Process I** 1 2 2  
Prerequisites: None Corequisites:None

This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings. This course is pending State Board Approval.

**HSE 123 Interviewing Techniques** 2 2 3  
Prerequisites: None Corequisites:None

This course covers the purpose, structure, focus, and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing of personal histories with instructor



supervision. Upon completion, students should be able to perform the basic interviewing skills needed to function in the helping relationship. This course is pending State Board Approval.

**HSE 125 Counseling 2 2 3**

Prerequisites: PSY 150 Corequisites:None

This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of self-exploration, problem solving, decision making, and personal growth.

Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques. This course is pending State Board Approval.

**HSE 127 Conflict Resolution 2 2 3**

Prerequisites: None Corequisites:None

This course introduces conflict resolution and mediation theory and practice. Emphasis is placed on achieving compromise and a win/win perception. Upon completion, students should be able to demonstrate competence in identifying seemingly dissimilar positions and facilitating agreement.

**HSE 210 Human Services Issues 2 0 2**

Prerequisites: None Corequisites:None

This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in multi-faceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field. This course is pending State Board Approval.

**HSE 225 Crisis Intervention 3 0 3**

Prerequisites: None Corequisites:None

This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately. This course is pending State Board Approval.

**HSE 240 Issues in Client Services 3 0 3**

Prerequisites: None Corequisites:None

This course introduces systems of professional standards, values, and issues in the helping professions. Topics include confidentiality, assessment of personal values, professional responsibilities, competencies, and ethics relative to multicultural counseling and research. Upon completion, students should be able to understand and discuss multiple ethical issues applicable to counseling and apply various

decision-making models to current issues.

**HSE 245 Stress Management 2 2 3**

Prerequisites: None Corequisites:None

This course covers stressors and techniques for stress management. Topics include anger, assertiveness, breathing, change, coping skills, family, time management, meditation, guided imagery, and journaling. Upon completion, students should be able to identify areas of stress and the skills and management techniques for dealing with stressors. This course is pending State Board Approval.

**HSE 250 Financial Services 2 0 2**

Prerequisites: None Corequisites:None

This course introduces those agencies that provide income maintenance casework services. Emphasis is placed on qualifying applicants for a variety of economic assistant programs offered by human services agencies. Upon completion, students should be able to make a factual and objective assessment of a client's economic situation to qualify them for economic assistance. This course is pending State Board Approval.

**HSE 251 Activities Therapy 2 2 3**

Prerequisites: None Corequisites:None

This course introduces skills and techniques used in recreation and leisure activities to enhance the lives of special populations. Emphasis is placed on music, art, and recreational therapy. Upon completion, students should be able to define, plan, and adapt recreational activities for selected groups and individuals. This course is pending State Board Approval.

**HSE 255 Health Prob & Prevent 2 2 3**

Prerequisites: None Corequisites:None

This course surveys a range of health problems and issues, including the development of prevention strategies. Topics include teen pregnancy, HIV/AIDS, tuberculosis, communicable diseases, professional burnout, substance abuse, and sexually transmitted diseases. Upon completion, students should be able to identify health issues and demonstrate prevention strategies.

**HUMANITIES**

**HUM 110\*Technology and Society 3 0 3**

Prerequisites: None Corequisites:None

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology.

**HUM 121\*The Nature of America 3 0 3**

Prerequisite: None Corequisites:None

This course provides an interdisciplinary survey of the American cultural, social, and political experience. Emphasis is placed on the multicultural character of American society, distinctive qualities of various regions, and the American political system. Upon completion, students should be able to analyze significant cultural, social, and political aspects of American life.

**HUM 150\*Amer. Women's Studies 3 0 3**

Prerequisite: None Corequisites:None

This course provides an inter-disciplinary study of the history, literature, and social roles of American women from Colonial times to the present. Emphasis is placed on women's roles as reflected in American language usage, education, law, the workplace, and mainstream culture. Upon completion, students should be able to identify and analyze the roles of women as reflected in various cultural forms.

**HUM 160\*Introduction to Film 2 2 3**

Prerequisite: None Corequisites:None

This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films.

**HUM 170 The Holocaust 3 0 3**

Prerequisite: None Corequisites:None

This course provides a survey of the destruction of European Jewry by the Nazis during World War II. Topics include the anti-Semitic ideology, bureaucratic structures, and varying conditions of European occupation and domination under the Third Reich. Upon completion, students should be able to demonstrate an understanding of the historical, social, religious, political, and economic factors which cumulatively resulted in the Holocaust. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**HYDRAULICS****HYD 110 Hydraulics/Pneumatics I 2 3 3**

Prerequisites: None Corequisites:None

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a

fluid power system, including design, application, and troubleshooting.

**HYD 112 Hydraulics/Med/Heavy****Duty****1 2 2**

Prerequisites: None

Corequisites:None

This course introduces hydraulic theory and applications as applied to mobile equipment. Topics include component studies such as pumps, motors, valves, cylinders, filters, reservoirs, lines, and fittings. Upon completion, students should be able to identify, diagnose, test, and repair hydraulic systems using schematics and technical manuals.

**INTERNATIONAL BUSINESS****INT 110 International Business 3 0 3**

Prerequisites: None

Corequisites:None

This course provides an overview of the environment, concepts, and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business. This course is pending State Board Approval.

**INT 180 Travel Study Abroad 3 0 3**

Prerequisites: None

Corequisites:None

This course is designed to apply language and theoretical skills in an appropriate international business setting in a foreign country. Emphasis is placed on strengthening foreign language skills, performing with greater competence and confidence in the international workplace, and completing objectives outlined in training plan. Upon completion, students should be able to understand and utilize cultural patterns and business practices in the region of study. This course is pending State Board Approval.

**INT 210 International Trade 3 0 3**

Prerequisites: INT 110

Corequisites:None

This course covers international business trade practices and foreign market research. Emphasis is placed on current trends of US trade practices in foreign countries and how to engage in international trade and acquire foreign marketing information. Upon completion, students should be able to formulate an overall product policy for the international marketplace. This course is pending State Board Approval.



**INT 220 International Economics 3 0 3**

Prerequisites: INT 110 and ECO 151 or ECO 251 or ECO 252

Corequisites: None

This course introduces the forces and criteria for the development of a new international economic order. Emphasis is placed on balance of payments, foreign exchange rates and their determination, International Monetary System, and arguments for and against free trade and protectionism. Upon completion, students should be able to describe economic principles and concepts of international trade. This course is pending State Board Approval.

**INT 230 International Law 3 0 3**

Prerequisites: INT 110 and BUS 115

Corequisites: None

This course is designed to develop an understanding of the different theories on international law and their effect on international trade. Emphasis is placed on concepts of contracts, international transactions, major organization in international trade, establishment of treaties, economic areas, and US laws affecting international trade. Upon completion, students should be able to apply theories and concepts to international trade and transactions. This course is pending State Board Approval.

**INDUSTRIAL SCIENCE****ISC 111 Quality Control 2 0 2**

Prerequisites: None

Corequisites:None

This course provides training in inspection and gaging methods. Topics include special gage design, production gaging, and statistical process control concepts. Upon completion, students should be able to design and use custom gaging and apply statistical process control concepts.

**ISC 112 Industrial Safety 2 0 2**

Prerequisites: None

Corequisites:None

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment.

**ISC 113 Industrial Specifications 1 0 1**

Prerequisites: None

Corequisites:None

This course introduces industrial specifications. Emphasis is placed on using machinist reference materials. Upon completion, students should be able to use and interpret charts and data found in reference materials.

**ISC 132 Mfg Quality Control 2 3 3**

Prerequisites: None

Corequisites:None

This course introduces quality concepts and techniques used in industry. Topics include

elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

**ISC 136 Productivity Analysis I 2 3 3**

Prerequisites: None

Corequisites:None

This course covers modern methods of improving productivity. Topics include traditional motion economy, methods analysis, time standards, process analysis, cycle time management, and human factors/ergonomics. Upon completion, students should be able to demonstrate an understanding of productivity concepts and apply productivity improvement techniques to work situations.

**ISC 151 Plant Layout 2 2 3**

Prerequisites: DFT 151

Corequisites:None

This course provides a practical study of factory planning. Emphasis is placed on site selection and efficient arrangement of work areas to achieve lower manufacturing costs. Upon completion, students should be able to produce sample layouts of manufacturing operations.

**INTERNET TECHNOLOGIES****ITN 110 Intro to Web Graphics 2 2 3**

Prerequisites: None

Corequisites:None

This course is the first of two courses covering the creation of web graphics, addressing problems peculiar to WWW display using appropriate software. Topics include web graphics file types, type conversion, RGB color, the browser-safe palette, elementary special effects, imagemaps, and other related topics. Upon completion, students should be able to create graphics such as banners, buttons, backgrounds, and other graphics for Web pages.

**ITN 120 Intro to Internet Multimedia 2 2 3**

Prerequisites: None

Corequisites:None

This is the first of two courses covering the creation of Internet multimedia. Topics include Internet multimedia file types, file type conversion, acquisition of digital audio and video, streaming audio and video and graphics animation plug-in programs and other related topics. Upon completion, students should be able to create Internet multimedia presentations utilizing a variety of methods and applications.

**ITN 130 Web Site Management 2 2 3**

Prerequisites: None

Corequisites:None

This course covers the issues involved in web site architecture. Topics include operating system directory structures, web site structural design, web site navigation, web site maintenance, backup and security. Upon

completion, students should be able to design a web site directory plan optimized for navigation and ease of maintenance. A course number ending with an "N" indicates a Novell Certified course; those ending with an "M" indicate a Microsoft Certified course.

#### **ITN 140 Web Development Tools 2 2 3**

Prerequisites: None Corequisites:None

This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

#### **ITN 150 Internet Protocols 2 2 3**

Prerequisites: None Corequisites:None

This course introduces the student to the application protocols used on the Internet. Topics include HTTP, Secure HTTP, TCP/IP, and related applications such as FTP, TELNET, and PING. Upon completion, the student will be able to use the protocols as they pertain to the Internet, as well as, set-up and maintain these protocols.

#### **ITN 160 Principles of Web Design 2 2 3**

Prerequisites: None Corequisites:None

This course introduces intermediate to advanced web page design techniques. Topics include effective use of graphics, fonts, colors, navigation tools, advanced markup language elements, as well as a study of bad design techniques. Upon completion, the student should be able to employ advanced design techniques to create high impact and highly functional web pages.

#### **ITN 170 Intro to Internet**

##### **Databases 2 2 3**

Prerequisites: None Corequisites:None

This is the first of two courses introducing the use of databases to store, retrieve and query data through HTML forms. Topics include database design for Internet databases, uses of ODBC-compliant databases. Upon completion, students should be able to create and maintain a database that will collect, query and report on data via an HTML form.

#### **ITN 180 Active Server Programming 2 2 3**

Prerequisites: None Corequisites:None

This course introduces Active Server programming. Topics include JScript, VBScript, and HTML forms processing, the Active Server Object Model. Upon completion, students should be able to create and maintain Active Server applications.

#### **ITN 210 Advanced Web Graphics 2 3 3**

Prerequisites: ITN 110 Corequisites:None

This course is the second of two courses covering web graphics. Topics include graphics acquisition using scanners and digital cameras, graphics optimization, use of masks, advanced special effects, GIF animation, and other related topics. Upon completion, students should be able to create graphics that are optimized for size and graphic file type, properly converted from digitized sources and create useful animated graphics.

#### **ITN 220 Advanced Internet Multimedia 2 2 3**

Prerequisites: ITN 120 Corequisites:None

This is the second of two courses covering Internet multimedia. Topics include use of advanced Internet multimedia applications. Upon completion, students should be able to create interactive Internet multimedia presentations.

#### **ITN 230 Intranets 2 2 3**

Prerequisites: ITN 130 Corequisites:None

This course covers the setting up of Intranets. Topics include selection of sever hardware and software, selection of client applications, security, conversion of existing data to Web based formats, intranet applications and administration. Upon completion, students should be able to set up a corporate or institutional intranet.

#### **ITN 235 Extranets 2 2 3**

Prerequisites: ITN 130 Corequisites:None

This course provides an introduction to the Internet standards and products used to connect a company with its suppliers, vendors, and/or customers. Upon completion, students should be able to participate in the planning, implementation, and maintenance of a corporate extranet.

#### **ITN 240 Internet Security 2 2 3**

Prerequisites: None Corequisites:None

This course covers security issues related to Internet services. Topics include the operating system and Internet service security mechanisms. Upon completion, students should be able to implement security procedures for operating system level and server level alerts.

#### **ITN 250 Implementing Internet Services 2 2 3**

Prerequisites: None Corequisites:None

This course covers the setup and configuration of news, mail, FTP and www services. Topics include selection and installation of software support common Internet services and related topics. Upon completion, students should be able



to install and configure the most commonly used Internet service software.

**ITN 260 Intro to E-Commerce 2 2 3**

Prerequisites: None Corequisites:None

This course introduces the concepts and tools to implement electronic commerce via the Internet. Topics include application and server software selection, securing transactions, use and verification of credit cards, publishing of catalogs, and site administration. Upon completion, the student will be able to setup a working e-commerce Internet web site.

**ITN 270 Adv Internet Databases 2 2 3**

Prerequisites: ITN 170 Corequisites:None

This is the second of two courses on Internet databases. Topics include database distribution and replication, data warehousing, integration of desktop and Internet database structures. Upon completion, students should be able to design and implement an Internet database.

**ITN 280 Unix Internet Programming 2 2 3**

Prerequisites: None Corequisites:None

This course presents advanced concepts and features of the UNIX operating system as they pertain to Internet programming. Topics will include process control, shell-programming and scripts, advanced search techniques, power user utilities and programming for Internet service maintenance. Upon completion, the student will be able to successfully perform various Internet-related UNIX programming tasks.

## **LEGAL EDUCATION**

**LEX 110 Intro to Paralegal Study 2 0 2**

Prerequisite: None Corequisites:None

This course introduces the paralegal profession and the legal system and an emphasis is placed on the role of professional and legal ethics. Topics include regulation, ethics, case analysis, legal reasoning, career opportunities, professional organizations, terminology and other related topics. Upon completion, the student should be able to understand the role of a paralegal and identify the skills, knowledge, and ethics required of paralegals.

**LEX 120 Legal Research/Writing I 2 2 3**

Prerequisite: None Corequisites:None

This course introduces the techniques of legal research and writing. Emphasis is placed on locating, analyzing, applying, and updating sources of law; effective legal writing, including proper citation; and the use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

**LEX 121 Legal Research/ Writing II 2 2 3**

Prerequisite: LEX 120 Corequisites:None

This course covers advanced topics in legal research and writing. Topics include more complex legal issues and assignments involving preparation of legal memos, briefs, and other documents and the advanced use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

**LEX 130 Civil Injuries 3 0 3**

Prerequisite: None Corequisites:None

This course covers traditional tort concepts and the evolving body of individual rights created by statute. Topics include intentional and non-intentional torts with emphasis on negligence, strict liability, civil rights, workplace and environmental liability, remedies, and damages. Upon completion, students should be able to recognize, explain, and evaluate elements of civil injuries and related defenses.

**LEX 140 Civil Litigation I 3 0 3**

Prerequisite: None Corequisites:None

This course introduces the structure of the legal system and the rules governing civil litigation. Topics include jurisdiction state and federal rules of civil procedure and evidence. Upon completion, students should be able to assist an attorney in pre-litigation matters and preparation of pleadings and motions.

**LEX 141 Civil Litigation II 2 2 3**

Prerequisite: LEX 140 Corequisites:None

This course covers advanced topics in the civil litigation process. Topics include motions, discovery, and trial and appellate procedures. Upon completion, students should be able to assist an attorney in preparing and organizing documents for trial, settlement and post-trial practice.

**LEX 150 Commercial Law I 2 2 3**

Prerequisite: None Corequisites:None

This course covers legally enforceable agreements, forms of organization, and selected portions of the Uniform Commercial Code. Topics include drafting and enforcement of contracts, leases, and related documents and selection and implementation of business organization forms, sales, and commercial papers. Upon completion, students should be able to apply the elements of a contract, prepare various business documents, and understand the role of commercial paper.

**LEX 151 Commercial Law II** 3 0 3  
 Prerequisite: LEX 150 Corequisites:None  
 This course is a continuation of LEX 150 and covers advanced topics in Business and Commercial Law. Topics include agency and employment, insurance, computer law, intellectual property, personal property and bailment, corporate organizations and bankruptcy. Upon completion, students will understand and be able to apply legal principles governing these topics and be able to draft a variety of financial instruments.

**LEX 160 Criminal Law & Procedure** 2 2 3  
 Prerequisite: None Corequisites:None  
 This course introduces substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pre-trial and trial process, and other related topics. Upon completion, students should be able to explain elements of specific crimes and assist an attorney in preparing a criminal case.

**LEX 210 Real Property I** 3 0 3  
 Prerequisite: None Corequisites:None  
 This course introduces the study of real property law. Topics include the distinction between real and personal property, various estates, mechanics of conveyance and encumbrance, recordation, special proceedings, and other related topics. Upon completion, students should be able to identify estates, forms of deeds, requirements for recording, and procedures to enforce rights to real property.

**LEX 211 Real Property II** 1 4 3  
 Prerequisite: LEX 210 Corequisites:None  
 This course continues the study of real property law relating to title examination and preparation of closing documents. Topics include use of courthouse and other public records in title examination and preparation of documents required in real estate transactions and closings. Upon completion, students should be able to plot/draft a description, perform complete title examination, draft closing documents including title insurance forms, and prepare disbursement reconciliation.

**LEX 214 Investigat & Trial Prep** 1 4 3  
 Prerequisite: None Corequisites:None  
 This course introduces the fundamentals of investigation. Topics include compiling/assembling data for cases; investigative planning/information gathering techniques; locating/interviewing witnesses; collection/preserving/evaluating sufficiency/admissibility of evidence; preparation

of reports; and evidence presentation at depositions/court proceeding. Upon completion, students should be able to plan/use investigative checklists, understand/demonstrate investigative techniques, prepare reports, and enhance verbal and interpersonal communications skills and interviewing techniques.

**LEX 220 Corporate Law** 2 0 2  
 Prerequisite: None Corequisites:None  
 This course covers the legal aspects of forming, operating, and maintaining a business. Emphasis is placed on the business corporation with additional coverage of sole proprietorships and partnerships. Upon completion, students should be able to draft basic partnership and corporate documents and file these documents as required.

**LEX 240 Family Law** 3 0 3  
 Prerequisite: None Corequisites:None  
 This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child custody, support, property division, adoption, domestic violence, and other related topics. Upon completion, students should be able to interview clients, gather information, and draft documents related to family law.

**LEX 250 Wills, Estates, & Trusts** 2 2 3  
 Prerequisite: None Corequisites:None  
 This course covers various types of wills, trusts, probate, estate administration, and intestacy. Topics include types of wills and execution requirements, caveats and dissents, intestate succession, inventories and accountings, distribution and settlement, and other related topics. Upon completion, students should be able to draft simple wills, prepare estate forms, understand administration of estates including taxation, and explain terms regarding trusts.

**LEX 260 Bankruptcy & Collections** 2 0 2  
 Prerequisite: None Corequisites:None  
 This course provides an overview of the laws of bankruptcy and the rights of creditors and debtors. Topics include bankruptcy procedures and estate management, attachment, claim and delivery, repossession, foreclosure, collection, garnishment, and post-judgment collection procedure. Upon completion, students should be able to prepare and file bankruptcy forms, collection letters, statutory liens, and collection of judgments.

**LEX 270 Law Office Mgt/Tech** 1 2 2  
 Prerequisite: None Corequisites:None  
 This course provides an overview of law office management and organization. Topics include office forms, filing systems, billing/time keeping, computer systems, calendar systems, library administration, case management,



office/personnel procedures, ethics, and technology. Upon completion, students should be able to establish and maintain various law office systems, monitor case progress, and supervise non-lawyer personnel.

**LEX 280 Ethics & Professionalism 2 0 2**

Prerequisite: None Corequisites:None

This course reinforces legal ethics and the role of the paralegal in a professional work environment. Topics include a review of ethics, employment of opportunities, and search techniques; paralegal certification and other related topics. Upon completion, students should be able to understand the paralegal's role in the ethical practice of law.

**LEX 283 Investigation 1 2 2**

Prerequisite: None Corequisites:None

This course covers various aspects of civil and criminal investigation. Topics include locating witnesses, interviewing techniques, obtaining records, sketching and photographing accident scenes, collecting and preserving evidence, and preparation of exhibits for trial. Upon completion, students should be able to locate witnesses, prepare questionnaires, interview witnesses, obtain criminal/motor vehicle/medical/accident records, sketch scenes, and prepare exhibits.

**LEX 290 Medical Evidence**

**Analysis 1 2 2**

Prerequisite: None Corequisites:None

This course is designed to teach reading and analyzing medical records for legal evaluation of bodily injury and disability claims. Emphasis is placed on terminology, identifying, obtaining and reviewing medical records and study of the major systems of the human body. Upon completion, students will be able to compile, analyze and organize medical documents to support or disprove injury claims.

**MACHINING**

**MAC 111 Machining Technology I 2 12 6**

Prerequisites: None Corequisites:None

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

**MAC 112 Machining Technology II 2 12 6**

Prerequisites: MAC 111 Corequisites: None

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis

is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

**MAC 113 Machining Technology III 2 12 6**

Prerequisites: MAC 112 Corequisites: None

This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.

**MAC 114 Intro to Metrology 2 0 2**

Prerequisites: None Corequisites: None

This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

**MAC 115 Grinding Operations 2 2 3**

Prerequisites: MAC 114 Corequisites: None

This course introduces surface and cylindrical grinding in the toolroom. Topics include safety and the basic setup and operation of surface and cylindrical grinding machines. Upon completion, students should be able to grind steps, slots, angles, radii, dress grinding wheels, and square blocks.

**MAC 122 CNC Turning 1 3 2**

Prerequisites: None Corequisites: None

This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

**MAC 124 CNC Milling 1 3 2**

Prerequisites: None Corequisites:None

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

**MAC 151 Machining Calculations 1 2 2**

Prerequisites: None Corequisites:None

This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their

applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.

**MAC 153 Compound Angles** 1 2 2

Prerequisites: None Corequisites:None

This course introduces the application of basic types and uses of compound angles. Emphasis is placed on problem solving by tilting and rotating adjacent angles to resolve an unknown compound angle. Upon completion, students should be able to set up and develop compound angles on parts using problem-solving techniques.

**MAC 214 Machining Technology IV** 2 12 6

Prerequisites: MAC 112 Corequisites: None

This course provides advanced applications and practical experience in the manufacturing of complex parts. Emphasis is placed on inspection, gauging, and the utilization of machine tools. Upon completion, students should be able to manufacture complex assemblies to specifications.

**MAC 241 Jigs & Fixtures I** 2 6 4

Prerequisites: MAC 112 Corequisites: None

This course introduces the application and use of jigs and fixtures. Emphasis is placed on design and manufacture of simple jigs and fixtures. Upon completion, students should be able to design and build simple jigs and fixtures.

**MAC 243 Die Making I** 2 6 4

Prerequisites: MAC 112 Corequisites:None

This course introduces the principles and applications of die making. Topics include types, construction, and application of dies. Upon completion, students should be able to design and build simple dies.

**MAC 244 Die Making II** 1 9 4

Prerequisites: MAC 243 Corequisites:None

This course provides continued study in the application and use of dies. Emphasis is placed on the design and manufacturing of complex dies. Upon completion, students should be able to design and build complex dies.

**MAC 245 Mold Construction I** 2 6 4

Prerequisites: MAC 112 Corequisites:None

This course introduces the principles of mold making. Topics include types, construction, and application of molds. Upon completion, students should be able to design and build simple molds.

**MAC 246 Mold Construction II** 1 9 4

Prerequisites: MAC 245 Corequisites:None

This course provides continued study in the application and use of molds. Emphasis is placed on design and manufacturing of complex molds. Upon completion, students should be able to design and build complex molds.

**MAC 247 Production Tooling** 2 0 2

Prerequisites: MAC 111 Corequisites: None

This course provides advanced study in tooling currently utilized in the production of metal parts. Emphasis is placed on the proper use of tooling used on CNC and other production machine tools. Upon completion, students should be able to choose proper tool grades based on manufacturing requirements and troubleshoot carbide tooling problems.

**MATHEMATICS**

**MAT 060 Essential Mathematics** 3 2 4

Prerequisites: MAT 050 Corequisites: None

This course is a comprehensive study of mathematical skills which should provide a strong mathematical foundation to pursue further study. Topics include principles and applications of decimals, fractions, percents, ratio and proportion, order of operations, geometry, measurement, and elements of algebra and statistics. Upon completion, students should be able to perform basic computations and solve relevant, multi-step mathematical problems using technology where appropriate.

**MAT 070 Introductory Algebra** 3 2 4

Prerequisites: MAT 060

Corequisites: RED 080 or ENG 085

This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

**MAT 075 Geometry** 3 2 4

Prerequisites: MAT 070 Corequisites:None

This course is designed to provide the student with a basic understanding and working knowledge of the fundamentals of plane and solid geometry. Consideration is given to the undefined terms of geometry, geometrical definitions, properties, postulates, theorems, and proofs. Topics include the study of congruence and similarity, parallel lines, triangles, quadrilaterals, polygons, circles, constructions, surface areas, and volumes.

**MAT 080 Intermediate Algebra** 3 2 4

Prerequisites: MAT 070

Corequisites: RED 080 or ENG 085

This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical, and quadratic



equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

**MAT 090 Accelerated Algebra** 3 2 4

Prerequisites: MAT 060, 070, and 080

Corequisites: RED 080 or 085

This course covers algebraic concepts with emphasis on applications. Topics include those covered in MAT 070 and MAT 080. Upon completion, students should be able to apply algebraic concepts in problem solving using appropriate technology.

**MAT 101 Applied Mathematics I** 2 2 3

Prerequisites: MAT 060 Corequisites: None

This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study.

**MAT 110 Mathematical**

**Measurement** 2 2 3

Prerequisites: MAT 070 Corequisites: None

This course provides an activity-based approach to utilizing, interpreting, and communicating data in a variety of measurement systems. Topics include accuracy, precision, conversion, and estimation within metric, apothecary, and avoirdupois systems; ratio and proportion; measures of central tendency and dispersion; and charting of data.

Upon completion, students should be able to apply proper techniques to gathering, recording, manipulating, analyzing, and communicating data.

**MAT 115 Mathematical Models** 2 2 3

Prerequisites: MAT 070 Corequisites: None

This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, functional notation, linear functions and their groups, probability, sampling techniques, scatter plots, and modeling. Upon completion, students should be able to solve practical problems, reason and communicate with mathematics, and work confidently, collaboratively, and independently.

**MAT 120 Geometry and Trigonometry** 2 2 3

Prerequisites: MAT 070 Corequisites: None

This course introduces the concepts of plane trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, right triangle trigonometry, and oblique triangles. Upon completion, students should be able to solve applied problems both independently and collaboratively using technology.

**MAT 121 Algebra/Trigonometry I** 2 2 3

Prerequisites: MAT 070 Corequisites: None

This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation, and solving of algebraic and radical functions; complex numbers; right triangle trigonometry; systems of equations; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results.

**MAT 122 Algebra/Trigonometry II** 2 2 3

Prerequisites: MAT 121 Corequisites: None

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, and trigonometry. Topics include exponential and logarithmic functions, translation and scaling of functions, Sine Law, Cosine Law, vectors, and statistics. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results.

**MAT 140\* Survey of Mathematics** 3 0 3

Prerequisites: MAT 070 and 080

Corequisites: None

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics may include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently.

**MAT 151\* Statistics I** 3 0 3

Prerequisites: MAT 080 or 090

Corequisites: None

This course provides a project-based approach to the study of basic probability, descriptive and

inferential statistics, and decision making. Emphasis is placed on measures of central tendency and dispersion, correlation, regression, discrete and continuous probability distributions, quality control, population parameter estimation, and hypothesis testing. Upon completion, students should be able to describe important characteristics of a set of data and draw inferences about a population from sample data.

**MAT 151A Statistics I Lab** 0 2 1

Prerequisites: MAT 080 or 090

Corequisites: MAT 151

This course is a laboratory for MAT 151. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**MAT 161\* College Algebra** 3 0 3

Prerequisites: MAT 080 or 090

Corequisites: None

This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on equations and inequalities; polynomials, rational, exponential and logarithmic functions; and graphing and data analysis/modeling. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction. A graphing calculator will be required in this course.

**MAT 162\* College Trigonometry** 3 0 3

Prerequisites: MAT 161 Corequisites: None

This course provides an integrated technological approach to trigonometry and its applications. Topics include trigonometric ratios, right triangles, oblique triangles, trigonometric functions, graphing, vectors, and complex numbers. Upon completion, students should be able to apply the above principles of trigonometry to problem solving and communication.

**MAT 165\* Finite Mathematics** 3 0 3

Prerequisites: MAT 161 Corequisites: None

This course provides topics used to formulate models and to solve and interpret solutions using an algorithmic approach. Topics include linear algebra, linear programming, simplex method, sets and counting, probability, mathematics of finance, and logic. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts of finite mathematics and the ability to solve related problems.

**MAT 175\* Precalculus** 4 0 4

Prerequisites: High School Algebra III / Trigonometry

Corequisites: None

This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction.

**MAT 175A Precalculus Lab** 0 2 1

Prerequisites: High School Algebra III / Trigonometry

Corequisites: MAT 175

This course is a laboratory for MAT 175. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**MAT 223 Applied Calculus** 2 2 3

Prerequisites: MAT 122 Corequisites: None

This course provides an introduction to the calculus concepts of differentiation and integration by way of application and is designed for engineering technology students. Topics include limits, slope, derivatives, related rates, areas, integrals, and applications. Upon completion, students should be able to demonstrate an understanding of the use of calculus and technology to solve problems and to analyze and communicate results.

**MAT 263\* Brief Calculus** 3 0 3

Prerequisites: MAT 161 Corequisites: None

This course introduces concepts of differentiation and integration and their applications to solving problems; the course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results.

**MAT 271\* Calculus I** 3 2 4

Prerequisites: MAT 172 or 175

Corequisites: None

This course covers in depth the differential



calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions.

**MAT 272\* Calculus II** 3 2 4

Prerequisites: MAT 271 Corequisites: None

This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems.

**MAT 273\* Calculus III** 3 2 4

Prerequisites: MAT 272 Corequisites: None

This course covers the calculus of several variables and is third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables.

**MAT 280 Linear Algebra** 3 0 3

Prerequisites: MAT 271 Corequisites: None

This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations, matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and appropriate use of linear algebra models to solve application problems. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**MAT 285 Differential Equations** 3 0 3

Prerequisites: MAT 272 Corequisites: None

This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first-order, linear higher-order, and systems of differential equations; numerical methods; series solutions;

eigenvalues and eigenvectors; Laplace transforms; and Fourier series. Upon completion, student should be able to use differential equations to model physical phenomena, solve the equations and use the solutions to analyze the phenomena. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**MECHANICAL**

**MEC 110 Intro to CAD/CAM** 1 2 2

Prerequisites: None Corequisites: None

This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.

**MEC 111 Machine Processes I** 2 3 3

Prerequisites: None Corequisites: None

This course introduces safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include safety, measuring tools, and the basic setup and operation of lathes, milling machines, drill presses, and saws. Upon completion, students should be able to manufacture a simple part to a specified tolerance.

**MEC 115 Mfg Tool Maintenance** 2 12 6

Prerequisites: MAC 112

Corequisites: MAC 115

This course is designed to teach machine operators to maintain complex precision tooling utilized in metal stamping and forming, injection molding, and automated assembly. Topics include the basics of heat treating, structure and physical properties of tool steels, tool alignment, tool sharpening and shimming, and troubleshooting tooling problems. Upon completion students should be able to perform frontline maintenance and troubleshooting for tooling on integrated manufacturing equipment. This course is a unique concentration requirement in the Integrated Operations concentration in the Manufacturing Technology program.

**MEC 145 Mfg Materials I** 2 3 3

Prerequisites: None Corequisites: None

This course introduces a variety of manufacturing materials and common processing techniques. Emphasis is placed on the processing, testing, and application of materials such as wood, metals, plastics, ceramics, and composites. Upon completion, students should be able to demonstrate an understanding of fundamental engineering applications for a variety of materials,

including their process capabilities and limitations.

**MEC 150 Intro to Automated Mfg**

**Control Systems** 1 3 2

Prerequisites: None Corequisites:None

This course prepares machine operators in various procedures, methods, tools and equipment necessary to analyze and troubleshoot automated manufacturing controls. Topics include electro-mechanical, optic, and photo optic sensors and control systems. Upon completion, students should be able to troubleshoot basic control problems on automated manufacturing equipment. This course is a unique concentration requirement in the Integrated Operations concentration in the Manufacturing Technology program.

**MEC 151 Mechanical Mfg Systems** 1 3 2

Prerequisites: None Corequisites:None

This course covers mechanical systems and sub-systems including timing cams, cam followers, timing belts, servo-motors, mechanical drive units, bearings, and mechanical linkage.

Emphasis will be placed on the understanding of these components and their integration into operating systems. Upon completion, students should be able to diagnose mechanical problems using a structured approach to troubleshooting mechanical systems and sub-systems.

**MEC 161 Manufacturing Processes I** 3 0 3

Prerequisites: MEC 111 Corequisites:None

This course provides the fundamental principles of processing materials into usable forms for the customer. Emphasis is placed on material forming, removal, and value-added processing provided to the customer by the manufacturers. Upon completion, students should be able to apply principles of traditional and non-traditional processing for metals and non-metals.

**MEC 161A Mfg Proc I Lab** 0 3 1

Prerequisites: None  
Corequisites: MEC 161

This course is a laboratory for MEC 161. Emphasis is placed on experiences that enhance the materials presented in MEC 161. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in MEC 161.

**MEC 172 Intro to Metallurgy** 2 2 3

Prerequisites: None Corequisites:None

This course covers the production, properties, testing, classification, microstructure, and heat-treating effects of ferrous and non-ferrous metals. Topics include the iron-carbon phase diagram, ITT diagram, ANSI code, quenching, senescing, and other processes concerning metallurgical transformations. Upon completion, students

should be able to understand the iron-carbon phase diagram, ITT diagram, microstructure images, and other phenomena concerning the behavior of metals.

**MEC 180 Engineering Materials** 2 3 3

Prerequisites: None Corequisites:None

This course covers the physical and mechanical properties of materials. Topics include testing, heat treating, ferrous and non-ferrous metals, plastics, composites, and material selection. Upon completion, students should be able to specify basic tests and properties and select appropriate materials on the basis of specific properties.

**MEC 237 Control Systems** 3 2 4

Prerequisites: ELC 111, MAT 122, and PHY 122

Corequisites: None

This course covers basic principles of control systems. Topics include the basic principles of electrical, electronic, and pneumatic control systems as related to industrial applications. Upon completion, students should be able to understand the design and function of circuits, motors, transducers, servomechanisms, and other devices. PHY 131 may be substituted for the PHY 122 prerequisite per the department chair of Manufacturing Engineering Technology.

**MEC 251 Statics** 2 2 3

Prerequisites: PHY 131 or 151

Corequisites: None

This course covers the concepts and principles of statics. Topics include systems of forces and moments on structures in two- and three-dimensions in equilibrium. Upon completion, students should be able to analyze forces and moments on structures.

**MEC 252 Strength of Materials** 2 2 3

Prerequisites: MEC 251 Corequisites: None

This course covers the principles and concepts of stress analysis. Topics include centroids, moments of inertia, shear/moment diagrams, and stress and strain. Upon completion, students should be able to perform a stress and strain analysis on structural components.

**MEC 263 Electro-Pneu  
Components** 2 4 4

Prerequisites: MEC 251 Corequisites: None

This course introduces principles and practical applications of electrical/pneumatic control systems, and primary control devices incorporated in those systems. Emphasis is placed on reading and interpreting ladder diagrams, building control circuits, and troubleshooting valves, switches, and sensors. Upon completion, students should be able to design, build, and troubleshoot basic electro-



pneumatic control systems.

**MEC 280 Robotics and CIM** 3 2 4

Prerequisites: MEC 237 and 265 or HYD 110

Corequisites: None

This course covers robotics and CIM. Topics include application, programming, and maintenance of robotic devices and the relationship between robotics and CIM. Upon completion, students should be able to safely program, operate, and maintain robots and understand the relationship between robotics and CIM.

**MEC 287 Applied Mfg Operations** 0 4 2

Prerequisites: MEC 115, 150, and 151

Corequisites: None

This course covers techniques used for maintaining and improving integrated manufacturing processes. Emphasis is placed on process setup, troubleshooting, improving machine run time, operation and application of system components to reduce or eliminate product defects and protect vital machine systems. Upon completion, students should be able to recommend basic improvements to a manufacturing process. This course is a unique concentration requirement in the Integrated Operations concentration in the Manufacturing Technology program.

**MEDICAL ASSISTING**

**MED 110 Orientation to Med**

Assist

1 0 0 1

Prerequisites: None

Corequisites:None

This course covers the history of medicine and the role of the medical assistant in the health care setting. Emphasis is placed on professionalism, communication, attitude, behaviors, and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting. *Restricted to MED Majors.*

**MED 116 Introduction to A & P** 3 2 0 4

Prerequisites: None

Corequisites:None

This course introduces basic anatomy and physiology. Emphasis is placed on the relationship between body structure and function and the procedures common to health care. Upon completion, students should be able to identify body system components and functions relating this knowledge to the delivery of health care. *Restricted to MED Majors.*

**MED 118 Medical Law and Ethics** 2 0 0 2

Prerequisites: None

Corequisites:None

This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical

issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional. *Restricted to MED Majors.*

**MED 120 Survey of Medical**

Terminology

2 0 0 2

Prerequisites: None

Corequisites: None

This course introduces the vocabulary, abbreviations, and symbols used in the language of medicine. Emphasis is placed on building medical terms using prefixes, suffixes, and word roots. Upon completion, students should be able to pronounce, spell, and define accepted medical terms.

**MED 121 Medical Terminology I** 3 0 0 3

Prerequisites: None

Corequisites: None

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

**MED 122 Medical Terminology II** 3 0 0 3

Prerequisites: MED 121

Corequisites:None

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

**MED 130 Admin Office Proc I** 1 2 0 2

Prerequisites: None

Corequisites:None

This course introduces medical office administrative procedures. Topics include appointment processing, written and oral communications, medical records, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment. *Restricted to MED Majors.*

**MED 131 Admin Office Proc II** 1 2 0 2

Prerequisites: None

Corequisites:None

This course is the second in a series and provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics, and introductory

insurance procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel.

*Restricted to MED Majors.*

**MED 134 Medical Transcription** 2 2 0 3  
Prerequisites: MED 121 Corequisites: None

This course provides the basic knowledge, understanding, and skills required to complete medical reports and transcribe medical dictation. Emphasis is placed on correct punctuation, capitalization, and spelling. Upon completion, students should be able to demonstrate competence in medical transcription. *Restricted to MED Majors.*

**MED 140 Exam Room Procedures I** 3 4 0 5  
Prerequisites: None Corequisites:None

This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in exam room procedures.

*Restricted to MED Majors.*

**MED 150 Laboratory Procedures I** 3 4 0 5  
Prerequisites: None Corequisites:None

This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective tests, phlebotomy, screening and follow-up of test results, and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics.

*Restricted to MED Majors.*

**MED 240 Exam Room Procedures II** 3 4 0 5

Prerequisites: MED 140 Corequisites: None  
This course is designed to expand and build upon skills presented in MED 140. Emphasis is placed on advanced exam room procedures. Upon completion, students should be able to demonstrate enhanced competence in selected exam room procedures. *Restricted to MED Majors.*

**MED 260 MED Clinical Externship** 0 0 15 5  
Prerequisites: None Corequisites:None

This course provides the opportunity to apply clinical, laboratory, and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function

as an entry-level health care professional.

*Restricted to MED Majors.*

**MED 262 Clinical Perspectives** 1 0 0 1  
Prerequisites: None Corequisites:None

This course is designed to explore personal and occupational responsibilities of the practicing medical assistant. Emphasis is placed on problems encountered during externships and development of problem-solving skills. Upon completion, students should be able to demonstrate courteous and diplomatic behavior when solving problems in the medical facility. *Restricted to MED Majors.*

**MED 272 Drug Therapy** 3 0 0 3  
Prerequisites: MED 140 Corequisites:None

This course focuses on major drug groups, including their side effects, interactions, methods of administration, and proper documentation. Emphasis is placed on the theory of drug administration. Upon completion, students should be able to identify, spell, recognize side effects of, and document the most commonly used medications in a physician's office.

*Restricted to MED Majors.*

**MED 276 Patient Education** 1 2 0 2  
Prerequisites: None Corequisites:None

This course is designed to provide communication skills, basic education principles, and knowledge of available community resources and to apply this knowledge to the clinical setting. Emphasis is placed on identifying appropriate community resources, developing patient education materials, and perfecting written and oral communication skills. Upon completion, students should be able to instruct, communicate effectively, and act as a liaison between the patient and community agencies. *Restricted to MED Majors.*

## MARKETING AND RETAILING

**MKT 120 Principles of Marketing** 3 0 3  
Prerequisites: None Corequisites:None

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

**MKT 122 Visual Merchandising** 3 0 3  
Prerequisites: None Corequisites:None

This course introduces basic layout design and commercial display in retail and service organizations. Topics include an analysis of display as a visual merchandising medium and an examination of the principles and applications of display and design. Upon completion, students should be able to plan, build, and evaluate



designs and displays.

**MKT 123 Fundamentals of Selling** 3 0 3

Prerequisites: None Corequisites:None

This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered.

**MKT 220 Advertising and Sales**

**Promotion** 3 0 3

Prerequisites: None Corequisites:None

This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.

**MKT 223 Customer Service** 3 0 3

Prerequisites: None Corequisites:None

This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.

**MKT 225 Marketing Research** 3 0 3

Prerequisites: MKT 120 Corequisites: None

This course provides information for decision making by providing guidance in developing, analyzing, and using data. Emphasis is placed on marketing research as a tool in decision making. Upon completion, students should be able to design and conduct a marketing research project and interpret the results.

**MKT 226 Retail Applications** 3 0 3

Prerequisites: None Corequisites:None

This course is designed to develop occupational competence through participation in case studies, group work, and simulations. Emphasis is placed on all aspects of store ownership and operation, including securing financial backing and a sufficient market share. Upon completion, students should be able to demonstrate an understanding of concepts covered through application.

**MEDICAL LABORATORY**

**MLT 110\*\* Intro to MLT** 2 3 0 3

Prerequisites: None Corequisites:None

This course introduces all aspects of the medical laboratory profession. Topics include health care/laboratory organization, professional ethics,

basic laboratory techniques, safety, quality assurance, and specimen collection. Upon completion, students should be able to demonstrate a basic understanding of laboratory operations and be able to perform basic laboratory skills.

**MLT 111\*\* Urinalysis & Body**

**Fluids** 1 3 0 2

Prerequisites: None Corequisites:None

This course introduces the laboratory analysis of urine and body fluids. Topics include physical, chemical, and microscopic examination of the urine and body fluids. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting urinalysis and body fluid tests.

**MLT 120\*\* Hematology/**

**Hemostasis I** 3 3 0 4

Prerequisites: None Corequisites:None

This course introduces the theory and technology used in analyzing blood cells and the study of hemostasis. Topics include hematology, hemostasis, and related laboratory testing. Upon completion, students should be able to demonstrate theoretical comprehension of hematology/hemostasis, perform diagnostic techniques, and correlate laboratory findings with disorders.

**MLT 125\*\* Immunohematology I** 4 3 0 5

Prerequisites: None Corequisites:None

This course introduces the immune system and response; basic concepts of antigens, antibodies, and their reactions; and applications in transfusion medicine and serodiagnostic testing. Emphasis is placed on immunological and blood banking techniques including concepts of cellular and humoral immunity and pretransfusion testing. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting routine immunological and blood bank procedures.

**MLT 130\*\* Clinical Chemistry I** 3 3 0 4

Prerequisites: None Corequisites:None

This course introduces the quantitative analysis of blood and body fluids and their variations in health and disease. Topics include clinical biochemistry, methodologies, instrumentation, and quality control. Upon completion, students should be able to demonstrate theoretical comprehension of clinical chemistry, perform diagnostic techniques, and correlate laboratory findings with disorders.

**MLT 140\*\* Intro to Microbiology** 2 3 0 3

Prerequisites: None Corequisites:None

This course introduces basic techniques and safety procedures in clinical microbiology.

Emphasis is placed on the morphology and identification of common pathogenic organisms, aseptic technique, staining techniques, and usage of common media. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting basic clinical microbiology procedures.

**MLT 215\*\* Professional Issues** 1 0 0 1

Prerequisites: None Corequisites:None

This course surveys professional issues in preparation for career entry. Emphasis is placed on work readiness and theoretical concepts in microbiology, immunohematology, hematology, and clinical chemistry. Upon completion, students should be able to demonstrate competence in career entry-level areas and be prepared for the national certification examination.

**MLT 216\*\* Professional Issues** 0 2 0 1

Prerequisites: None Corequisites:None

This course surveys professional issues in preparation for career entry. Emphasis is placed on work readiness and theoretical concepts in microbiology, immunohematology, hematology, and clinical chemistry. Upon completion, students should be able to demonstrate competence in career entry-level areas and be prepared for the national certification examination.

**MLT 240\*\* Special Clin Microbiology** 2 3 0 3

Prerequisites: MLT 140 Corequisites:None

This course is designed to introduce special techniques in clinical microbiology. Emphasis is placed on advanced areas in microbiology. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting specialized clinical microbiology procedures.

**MLT 257\*\* MLT Practicum I** 0 0 24 8

Prerequisites: None Corequisites:None

This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

**MLT 269\*\* MLT Practicum II** 0 0 3311

Prerequisites: None Corequisites:None

This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

# MAGNETIC RESONANCE IMAGING

**MRI 210 MRI Physics and Equipment** 3 0 0 3

Prerequisites: Enrollment in CT/MRI diploma or MRI certificate program

Corequisites: None

This course covers the physical principles of image formation, data acquisition, and image processing in magnetic resonance imaging.

Emphasis is placed on instrumentation, fundamentals, pulse sequences, data manipulation, imaging parameters, options, and their effects on image quality. Upon completion, students should be able to understand the principles behind image formation, data acquisition, and image processing in magnetic resonance imaging.

**MRI 211 MRI Procedures** 4 0 0 4

Prerequisites: Enrollment in CT/MRI diploma or MRI certificate program

Corequisites: None

This course covers patient care, magnetic field safety, cross-sectional anatomy, contrast media, and scanning procedures in magnetic resonance imaging. Emphasis is placed on patient assessment and monitoring, safety precautions, contrast agents' use, methods of data acquisition, and identification of cross-sectional anatomy. Upon completion, students should be able to integrate all facets of imaging procedures in magnetic resonance imaging.

**MRI 224 MRI Clinical Practicum** 0 0 12 4

Prerequisites: Enrollment in CT/MRI diploma or MRI certificate program

Corequisites: None

This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.

**MRI 227 MRI Clinical Practicum** 0 0 21 7

Prerequisites: Enrollment in CT/MRI diploma or MRI certificate program

Corequisites: None

This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and



responsibilities within the magnetic resonance clinical environment.

## **THERAPEUTIC MASSAGE**

**MTH 110 Massage Therapy I** 6 12 0 10

Prerequisites: None

Corequisites: BIO 163 or MED 120 or PSY 110

This course introduces concepts basic to the role of the massage therapist. Emphasis is placed on beginning theory and techniques of body work as well as skill in therapeutic touch. Upon completion of the course, the student should be able to apply basic practical massage therapy skills. This course is pending State Board Approval.

**MTH 120 Massage Therapy II** 6 12 0 10

Prerequisites: None

Corequisites: MTH 110 or BIO 155

This course provides an expanded knowledge and skill base for the massage therapist.

Emphasis is placed on selected therapeutic approaches throughout the lifespan. Upon completion of this course, the student should be able to perform entry level massage therapy techniques. This course is pending State Board Approval.

**MTH 125 Massage Therapy III** 2 0 0 2

Prerequisites: None

Corequisites: MTH 120

This course is designed to explore issues related to the practice of massage therapists. Emphasis is placed on ethical, legal, professional, and political issues. Upon completion of this course, the student should be able to discuss issues relating to the practice of massage therapy. This course is pending State Board Approval.

**MTH 210 Massage Therapy IV** 4 12 0 8

Prerequisites: None

Corequisites: MTH 125 or BIO 271

This course provides knowledge and skills in diverse body work modalities. Emphasis is placed on selected techniques such as Neuromuscular Therapy, Strain/Counter Strain Therapy, Oriental Therapies, Reflexology, and Reiki. Upon completion of this course, the student should be able to perform basic skills in techniques covered. This course is pending State Board Approval.

**MTH 220 Massage Therapy V** 4 0 10 7

Prerequisites: None

Corequisites: MTH 210 or COE 111

This course provides knowledge and skills in more complex body works modalities. Emphasis is placed on selected techniques such as Myofascial Release, Injury Massage, and Hydrotherapy. Upon completion of this course, the student should be able to perform basic skills

in techniques covered. This course is pending State Board Approval.

## **MUSIC**

**MUS 110\* Music Appreciation** 3 0 3

Prerequisites: None

Corequisites: None

This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music.

## **NETWORKING**

**NET 110 Data Comm/Networking** 2 2 3

Prerequisites: None

Corequisites: None

This course introduces data communication and networking. Topics include telecommunication standards, protocols, equipment, network topologies, communication software, LANs, WANs, the Internet, and network operating systems. Upon completion, students should be able to demonstrate understanding of the fundamentals of telecommunication and networking.

**NET 115 Telecom Fundamentals** 1 2 2

Prerequisites: CIS 110 or 111 Corequisites: None

This course covers the fundamentals of the electronic transfer of information for those who have not received credit for NET 110. Topics include terminal emulation software usage, file transfer methods, PC-based fax/modem/voice-mail operations, accessing and navigating the Internet, and bulletin boards. Upon completion, students should be able to access and use on-line services and the Internet, send and receive e-mail, and perform other basic telecommunication operations.

**NET 120 Network Install/Admin I** 2 2 3

Prerequisites: NET 110

Corequisites: None

This course covers the installation and administration of network hardware and system software. Topics include network topologies, various network operating systems, server and workstation installation and configuration, printer services, and connectivity options. Upon completion, students should be able to perform basic installation and administration of departmental networks.

**NET 125 Routing and Switching I** 1 4 3

Prerequisites: NET 110 or CIS 173

Corequisites: None

This course introduces the OSI model, network topologies, IP addressing, and subnet masks, simple routing techniques, and basic switching terminology. Topics include the basic functions

of the seven layers of the OSI model, different classes of IP addressing and subnetting, router login scripts. Upon completion, students should be able to list the key internetworking functions of the OSI Networking Layer and how they are performed in a variety of router types. This is the first of four semesters of the Cisco CCNA certification program.

**NET 126 Routing and Switching II 1 4 3**

Prerequisites: NET 125 Corequisites: None

This course introduces router configurations, router protocols, switching methods, and hub terminology. Topics include the basic flow control methods, router startup commands, manipulation of router configuration files, IP and data link addressing. Upon completion, students should be able to prepare the initial router configuration files, as well as enable, verify, and configure IP addresses. This is the second of four semesters of the Cisco CCNA certification program.

**NET 225 Adv. Router & Switching I 1 4 3**

Prerequisites: NET 126 Corequisites: None

This course introduces advanced router configurations, advanced LAN switching theory and design, VLANs, Novell IPX, and threaded case studies. Topics include router elements and operations, adding routing protocols to a configuration, monitoring IPX operations on the router, LAN segmentation, and advanced switching methods. Upon completion, students should be able to describe LAN and network segmentation with bridges, routers and switches and describe a virtual LAN. This is the third of four semesters of the Cisco CCNA certification program.

**NET 226 Adv Router & Switching II 1 4 3**

Prerequisites: NET 225 Corequisites: None

This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for network routing problems, identify ISDN protocols, channels, and function groups, describe the Spanning Tree protocol. This is the final semester of the Cisco CCNA certification program.

**NET 260 Internet Dev & Support 3 0 3**

Prerequisites: NET 110 or 115 or CIS 282

Corequisites: None

This course covers issues relating to the development and implementation of Internet related tools and services. Topics include Internet organization, site registration, e-mail servers, Web servers, Web page development, legal issues, firewalls, multimedia, TCP/IP, service providers, FTP, list servers, and gateways. Upon completion, students should be able to develop and support the Internet services needed within an organization.

**NUCLEAR MEDICINE**

**NMT 110 Intro to Nuclear Med 2 0 0 2**

Prerequisites: Enrollment in the Nuclear

Medicine program

Corequisites: None

This course provides a comprehensive introduction to the field of nuclear medicine. Topics include overview of school, program, and profession; medical terminology and ethics; medical legal issues; general patient care and radiation safety practices; and departmental organization. Upon completion, students should be able to utilize various learning resources and demonstrate understanding of radiation safety standards and ethical, professional conduct.

**NMT 110A Intro to Nuclear**

**Med Lab 0 3 0 1**

Prerequisites: Enrollment in the Nuclear

Medicine program

Corequisites: NMT 110

This course is a laboratory to accompany NMT 110. Emphasis is placed on laboratory experiences that enhance material presented in NMT 110. Upon completion, students should be able to apply the laboratory experiences to the material presented in NMT 110.

**NMT 126 Nuclear Physics 2 0 0 2**

Prerequisites: NMT 110 Corequisites: None

This course introduces the fundamental principles of the physics that underlie nuclear medicine. Topics include atomic structure, electromagnetic and particulate radiation, decay schemes, production of radionuclides with emphasis on radionuclide generators, and decay calculations. Upon completion, students should be able to demonstrate an understanding of the physical concepts covered in the course.

**NMT 132 Overview-Clinical**

**Nuc Med 2 0 6 4**

Prerequisites: NMT 110 Corequisites: None

This course is designed to familiarize students with the clinical practice of nuclear medicine. Emphasis is placed on the routine clinical



procedures, radiopharmaceuticals and dosage, equipment manipulation, and basic patient care. Upon completion, students should be able to demonstrate integration of the principles covered in the classroom with the clinical experience.

**NMT 134 Nuclear Pharmacy** 2 0 0 2

Prerequisites: NMT 110 Corequisites:None

This course covers the formulation and application of radiopharmaceuticals. Topics include the preparation, handling, disposition, and quality control of clinically useful radiopharmaceuticals. Upon completion, students should be able to discuss the appropriate use and disposition of radiopharmaceuticals currently used in clinical nuclear medicine.

**NMT 136 Health Physics** 2 0 0 2

Prerequisites: NMT 110 Corequisites:None

This course covers the regulations and practices that ensure minimum exposure of patients, co-workers, and self to ionizing radiation. Topics include interactions of radiation with matter, protective practices, state and federal regulatory agencies and their directives, and methods of monitoring exposure. Upon completion, students should be able to demonstrate an understanding of the regulations and practices presented in the course.

**NMT 211 NMT Clinical Practice I** 0 0 21 7

Prerequisites: NMT 132 Corequisites:None

This course is one of two courses designed to provide clinical practice in nuclear medicine. Topics include radiation protection, radiopharmaceutical use, patient care, imaging procedures, non-imaging procedures, administrative procedures, and the therapeutic use of radionuclide. Upon completion, students should be able to demonstrate performance of the procedures covered in the course.

**NMT 212 Proc for Nuclear Med I** 2 0 0 2

Prerequisites: NMT 132 Corequisites:None

This course begins the in-depth study of clinical procedures performed by nuclear medicine technologists. Emphasis is placed on dose administration, use of instrumentation, computer applications, and normal and abnormal presentation. Upon completion, students should be able to demonstrate an understanding of the principles related to the procedures presented in the course.

**NMT 212A Proc for Nuc Med I Lab** 0 3 0 1

Prerequisites: NMT 132

Corequisites: NMT 212

This course is a laboratory to accompany NMT 212. Emphasis is placed on experiences that enhance material presented in NMT 212. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in NMT 212.

**NMT 214 Radiobiology** 2 0 0 2

Prerequisites: NMT 132 Corequisites:None

This course covers the principles of radiation biology. Emphasis is placed on a system's sensitivity to radiation, radiation pathology, and the biological effects of radiation. Upon completion, students should be able to demonstrate an understanding of the effects of radiation in nuclear medicine.

**NMT 215 Non-Imaging Instrumentation** 1 3 0 2

Prerequisites: NMT 132 Corequisites:None

This course covers the proper operation of various types of non-imaging equipment used in nuclear medicine. Emphasis is placed on principles of radiation detection, quality control procedures, various counting problems, and machine-specific operating procedures. Upon completion, students should be able to demonstrate the proper use of the devices discussed in the course.

**NMT 218 Computers in Nuc Med** 2 0 0 2

Prerequisites: NMT 132 Corequisites:None

This course provides a general introduction to the operation of computers and the application of computers to the field of nuclear medicine. Topics include number systems, major system components, input/output devices, and acquisition and processing of nuclear medicine images. Upon completion, students should be able to demonstrate an understanding of the concepts presented.

**NMT 221 NMT Clinical Practice II** 0 0 21 7

Prerequisites: NMT 132 Corequisites:None

This course is one of two courses designed to provide clinical practice in nuclear medicine. Topics include radiation protection, radiopharmaceutical use, patient care, imaging procedures, non-imaging procedures, administrative procedures, and the therapeutic use of radionuclides. Upon completion, students should be able to demonstrate performance of the procedures covered in this course.

**NMT 222 Proc for Nuclear Med II** 2 0 0 2

Prerequisites: NMT 132 Corequisites:None

This course concludes the in-depth study of clinical procedures performed in nuclear medicine. Topics include method of dose administration, data acquisition parameters, computer use, and data patterns consistent with normal and described pathological states. Upon completion, students should be able to demonstrate an understanding of the principles related to the procedures discussed in the course.

**NMT 222A Proc for Nuc Med II** 2 0 0 1  
**Lab**

Prerequisites: NMT 132

Corequisites: NMT 222

This course is a laboratory to accompany NMT 222. Emphasis is placed on experiences that enhance material presented in NMT 222. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in NMT 222.

**NMT 224 In Vitro Procedures** 2 0 0 2

Prerequisites: NMT 132 Corequisites:None

This course introduces the area of in vitro nuclear medicine. Emphasis is placed on laboratory skills; selected aspects of chemistry, biochemistry, and immunology; procedures for common assays; and laboratory safety. Upon completion, students should be able to demonstrate an understanding of the concepts presented.

**NMT 224A In Vitro Proc Lab** 0 3 0 1

Prerequisites: NMT 132

Corequisites: NMT 224

This course is a laboratory to accompany NMT 224. Emphasis is placed on laboratory experiences that enhance material presented in NMT 224. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in NMT 224.

**NMT 225 Imaging Instrumentation** 1 3 0 2

Prerequisites: NMT 132 Corequisites:None

This course covers the operations of various imaging equipment used in nuclear medicine. Emphasis is placed on planar and SPECT gamma cameras. Upon completion, students should be able to safely operate and evaluate performance characteristics of the equipment discussed in the course.

## **NURSING**

**NUR 101 Practical Nursing I** 7 6 6 11

Prerequisites: Enrollment in the Practical Nursing program

Corequisites: None

This course introduces concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, legal/ethical/professional issues, wellness/illness patterns, and basic nursing skills. Upon completion, students should be able to demonstrate beginning understanding of nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span.

**NUR 102 Practical Nursing II** 8 0 12 12

Prerequisites: BIO 163 and NUR 101

Corequisites: None

This course includes more advanced concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, delegation, cost effectiveness, legal/ethical/professional issues, and wellness/illness patterns. Upon completion, students should be able to begin participating in the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span.

**NUR 103 Practical Nursing III** 6 0 12 10

Prerequisites: None

Corequisites:None

This course focuses on use of nursing/related concepts by practical nurses as providers of care/members of discipline in collaboration with health team members. Emphasis is placed on the nursing process, wellness/illness patterns, entry-level issues, accountability, advocacy, professional development, evolving technology, and changing health care delivery systems. Upon completion, students should be able to use the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span.

**NUR 107 LPN Refresher** 9 0 9 12

Prerequisites: None

Corequisites:None

This refresher course is designed to provide an independent didactic review for the previously licensed practical nurse whose license has lapsed. Emphasis is placed on common medical-surgical conditions and nursing interventions, including mental health principles, pharmacological concepts, and safe clinical practice. Upon completion, students will be eligible to apply for reinstatement of licensure.

**NUR 110 Nursing I** 5 3 6 8

Prerequisites: Admission to the Associate Degree Nursing program

Corequisites: None

This course introduces concepts basic to beginning nursing practice. Emphasis is placed on introducing the nurse's role as provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to demonstrate beginning competence in caring for individuals with common alterations in health.

**NUR 117 Pharmacology** 1 3 0 2

Prerequisites: None

Corequisites:None

This course introduces information concerning sources, effects, legalities, and the safe use of medications as therapeutic agents. Emphasis is placed on nursing responsibility, accountability,



and application of the nursing process regarding drug therapy. Upon completion, students should be able to compute dosages and administer medication safely.

**NUR 120 Nursing II** 5 3 6 8

Prerequisites: BIO 168 and NUR 110

Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on developing the nurse's role as provider of care, manager of care, and member of the discipline of nursing.

Upon completion, students should be able to participate in the delivery of nursing care for individuals with common alterations in health.

**NUR 130 Nursing III** 4 3 6 7

Prerequisites: BIO 169 and NUR 120

Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on expanding the nurse's role as provider of care, manager of care, and member of the discipline of nursing.

Upon completion, students should be able to deliver nursing care to individuals with common alterations in health.

**NUR 210 Nursing IV** 5 3 12 10

Prerequisites: NUR 130 Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on using collaboration as a provider of care, manager of care, and member of the discipline of nursing.

Upon completion, students should be able to modify nursing care for individuals with common alterations in health.

**NUR 220 Nursing V** 4 3 15 10

Prerequisites: NUR 210 Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on the nurse's role as an independent provider and manager of care for a group of individuals and member of a multidisciplinary team. Upon completion, students should be able to provide comprehensive nursing care to a group of individuals with common complex health alterations.

**NUR 244 Issues and Trends** 2 0 0 2

Prerequisites: NUR 210 Corequisites: None

This course presents an overview of current trends and issues in nursing as they affect nursing practice in a changing health care environment. Emphasis is placed on making an effective transition into the roles of the practicing nurse.

Upon completion, students should be able to

articulate professional aspects of the practice of nursing.

## **NUTRITION**

**NUT 110 Nutrition** 3 0 3

Prerequisites: None Corequisites: None

This course covers basic principles of nutrition and their relationship to human health. Topics include meeting nutritional needs of healthy people, menu modification based on special dietary needs, food habits, and contemporary problems associated with food selection. Upon completion, students should be able to apply basic nutritional concepts to food preparation and selection.

## **OPERATIONS MANAGEMENT**

**OMT 160\*\* Ethical Issues in Op Mgmt** 3 0 3

Prerequisites: None Corequisites: None

This course focuses on a wide variety of ethical issues in operations management. Emphasis is placed on distinguishing between legal and illegal actions as well as ethical and nonethical actions. Upon completion, students should be able to demonstrate critical thinking skills to evaluate ethical situations.

## **OFFICE SYSTEMS TECHNOLOGY**

**OST 131 Keyboarding** 1 2 2

Prerequisites: None Corequisites: None

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system. Students will be introduced to basic word processing techniques and learn to format basic business documents.

**OST 134 Text Entry & Formatting** 2 2 3

Prerequisites: OST 131 Corequisites: None

This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce mailable documents and key timed writings at speeds commensurate with employability.

**OST 135 Adv Text Entry & Format** 3 2 4

Prerequisites: OST 134 Corequisites: None

This course is designed to incorporate computer application skills in the generation of office documents. Emphasis is placed on the production of letters, manuscripts, business forms, tabulation, legal documents, and newsletters. Upon completion, students should be able to make independent decisions regarding planning, style, and method of presentation.

**OST 136 Word Processing 1 2 2**

Prerequisites: OST 131 or permission of instructor

Corequisites: None

This course introduces word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.

**OST 137 Office Software Applications 1 2 2**

Prerequisites: OST 134 or OST 136

Corequisites: None

This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a hands on approach. Upon completion, students should be able to use software in a business environment. Course content will concentrate on advanced word processing procedures and document preparation.

**OST 162 Executive Terminology 3 0 3**

Prerequisites: None Corequisites:None

This course is designed to increase and improve proficiency in word usage. Topics include root words, prefixes, suffixes, homonyms, synonyms, and specialized vocabularies. Upon completion, students should be able to use acquired vocabulary skills in the global workplace.

**OST 164 Text Editing Applications 3 0 3**

Prerequisites: OST 131 Corequisites:None

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.

**OST 181 Intro to Office Systems 2 2 3**

Prerequisites: None Corequisites:None

This course introduces the skills and abilities needed in today's office. Topics include effectively interacting with co-workers and the public, processing simple financial and information documents, and performing functions typical of today's offices. Upon completion, students should be able to display skills and decision-making abilities essential for functioning in the total office context.

**OST 184 Records Management 1 2 2**

Prerequisites: None Corequisites:None

This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and

numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.

**OST 201 Medical Transcription I 3 2 4**

Prerequisites: OST 136 and OST 164

Corequisites: MED 122, OST 142 and 136

This course introduces dictating equipment and typical medical dictation. Emphasis is placed on efficient use of equipment, dictionaries, PDRs, and other reference materials. Upon completion, students should be able to efficiently operate dictating equipment and to accurately transcribe a variety of medical documents in a specified time. *Restricted to MED Majors.*

**OST 202 Medical Transcription II 3 2 4**

Prerequisites: OST 201 Corequisites:None

This course provides additional practice in transcribing documents from various medical specialties. Emphasis is placed on increasing transcription speed and accuracy and understanding medical procedures and terminology. Upon completion, students should be able to accurately transcribe a variety of medical documents in a specified time.

*Restricted to MED Majors.*

**OST 203 Fundamentals of Medical Documentation 3 0 3**

Prerequisites: OST 202

Corequisites: MED 121, MED 122, or OST 141

This course covers the use of digital dictation systems. Topics include workplace security systems; the access, retrieval, and transport of medical documents; and other transcribing techniques necessary for acceptable medical documentation. Upon completion, students should be able to process medical documents in a home-based or medical facility. This course is intended for diploma programs. *Restricted to MED Majors.*

**OST 223 Machine Transcription I 1 2 2**

Prerequisites: OST 134 or OST 136, and

OST 162 and OST 164

Corequisites: None

This course covers the use of transcribing machines to produce mailable documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe documents into mailable copy.

**OST 224 Machine Transcription II 1 2 2**

Prerequisites: OST 223 Corequisites:None

This course provides advanced transcription skills. Emphasis is placed on specialized transcription features. Upon completion, students should be able to transcribe complex business



documents into mailable copy with minimal assistance.

### **OST 289 Office Systems**

**Management** 2 2 3

Prerequisites: OST 134 or OST 136, and  
OST 164, CIS 120, CIS 162

Corequisites: OST 137 and CIS 152

This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics, and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment. This is a project-based course integrating a variety of software.

## **OCCUPATIONAL THERAPY**

**OTA 110\*\* Fundamental of OT** 2 3 0 3

Prerequisites: None

Corequisites: BIO 165 or 168

This course introduces occupational therapy theory, practice, philosophy, and principles. Emphasis is placed on providing a basic understanding of the profession as well as beginning to develop interaction and observation skills. Upon completion, students should be able to demonstrate basic understanding of OT practice options, uniform terminology, activity analysis, principles, process, philosophies, and frames of reference.

**OTA 120\*\* OT Media I** 1 3 0 2

Prerequisites: None

Corequisites: OTA 110

This course provides training in recognizing the therapeutic value of and using a wide variety of leisure, self-care, and work activities. Topics include crafts, games, personal care and work activities, as well as teaching and learning methods and styles. Upon completion, students should be able to design, select, and complete/perform leisure, self-care and work activities that would be therapeutic for designated client populations.

**OTA 130\*\* Assessment Skills** 2 3 0 3

Prerequisites: None

Corequisites: OTA 110

This course provides training in appropriate and accurate assessment and intervention skills related to sensory, movement, perceptual/cognitive, affective systems, and ADL skills. Topics include kinesiology, body mechanics, sensory, ROM, MMT, cognitive/perceptual, psychosocial, self-care, and work-related assessments; treatment approaches; and basics of group structure and dynamics. Upon completion, students should be able to administer various assessment tools and

appropriate treatment approaches regarding sensation, movement, perception/cognition, affect, self-care, and work-related skills.

**OTA 140\*\* Professional Skills I** 0 3 0 1

Prerequisites: None

Corequisites: OTA 110

This course introduces the roles and responsibilities of COTAs/OTRs in OT practice and facilitates development of observation, documentation, and therapeutic use of self skills. Topics include Code of Ethics, roles/responsibilities, credentialing/licensing, documentation, therapeutic use of self and professional identity/behavior, supervisory relationships, time management, and observation skills. Upon completion, students should be able to demonstrate ethical behavior, discriminate between roles/responsibilities of COTAs/OTRs, and participate in acceptable supervision, documentation, and scheduling.

**OTA 150\*\* Life Span Skills I** 2 3 0 3

Prerequisites: None

Corequisites: PSY 241 and OTA 170

This course is designed to use knowledge gained from PSY 241 as it applies to OT practice from birth to adolescence. Topics include review of normal growth and development, identification/discussion of common disabilities/delays, assessment, treatment planning, and intervention approaches used with these populations. Upon completion, students should be able to identify/use assessments/screenings and interventions for infants through adolescents for selected disabilities/developmental delays in various settings.

**OTA 161\*\* Fieldwork I-  
Placement 1** 0 0 3 1

Prerequisites: OTA 120 and 140

Corequisites: OTA 130

This course provides introductory-level clinical training opportunities. Emphasis is placed on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance/direction of fieldwork supervisors.

**OTA 162\*\* Fieldwork I-  
Placement 2** 0 0 3 1

Prerequisites: OTA 120 and 140

Corequisites: OTA 130

This course provides introductory-level clinical training opportunities. Emphasis is placed on observational and basic interactional skills in a setting with a culturally diverse client population.

Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance/direction of fieldwork supervisors.

**OTA 163\*\* Fieldwork I- Placement 3 0 0 3 1**

Prerequisites: OTA 120 and 140

Corequisites: OTA 130

This course provides introductory-level clinical training opportunities. Emphasis is placed on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance/direction of fieldwork supervisors.

**OTA 170\*\* Physical Dysfunction 2 3 0 3**

Prerequisites: None

Corequisites: OTA 130

This course is designed to provide knowledge and skills needed for working with individuals experiencing varied medical/physical conditions within their socioeconomic and cultural environments. Topics include medical terminology, common diagnoses, structures/functions that change with disease processes, assessment/treatment priorities for specific problems/conditions, treatment planning, and intervention. Upon completion, students should be able to recognize common symptoms, prioritize problems, and provide for patient safety and infection control when planning and implementing treatment.

**OTA 180\*\* Psychosocial Dysfunction 2 3 0 3**

Prerequisites: PSY 281

Corequisites: OTA 130

This course uses theories/principles related to psychological/psychiatric health and illnesses and provides training in assessing/treating symptoms of dysfunction and therapeutic use of self and groups. Topics include psychiatric illnesses, symptoms of dysfunction, assessment and treatment of individuals, planning and facilitating therapeutic groups, client safety, and psychosocial aspects of practice. Upon completion, students should be able to effectively plan and conduct individual and group treatment for client conditions related to psychosocial dysfunction recognizing temporal/socioeconomic/cultural contexts.

**OTA 220\*\* OT Media II 1 6 0 3**

Prerequisites: OTA 120 and 130

Corequisites: None

This course provides training in appropriate and accurate assessment and intervention skills

related to orthotics, prosthetics, assistive devices, environmental controls, and ADA issues. Topics include ergonomics and hand function, splint selection/fabrication, changes that improve access for persons with disabilities, use of modalities in treatment, and computers in OT intervention. Upon completion, students should be able to demonstrate proficiency fabricating/monitoring orthotic devices, constructing/modifying assistive devices, using ADA guidelines, and using computers for therapeutic purposes.

**OTA 225\*\* OT Media III 1 3 0 2**

Prerequisites: OTA 120 Corequisites:None

This course provides additional training in recognizing the therapeutic value of and using a wide variety of craft and work activities. Emphasis is placed on intensive exposure to crafts and work activities as well as teaching and learning methods and styles. Upon completion, students should be able to design, select, and complete/perform a variety of work and craft-related activities with therapeutic value.

**OTA 240\*\* Professional Skills II 0 3 0 1**

Prerequisites: OTA 140 Corequisites:None

This course builds upon and expands skills developed in OTA 140 with emphasis on documentation, supervisory relationships, involvement in the profession, and clinical management skills. Topics include clarification of roles/responsibilities, detailed examination of the supervisory process, professional participation in organizations, and the mechanics of assisting in clinic operations. Upon completion, students should be able to work effectively with a supervisor, plan/implement a professional activity, and perform routine clinic management tasks.

**OTA 245\*\* Professional Skills III 0 3 0 1**

Prerequisites: OTA 240 Corequisites:None

This course provides preparation for Fieldwork II experiences using skills/knowledge gained in OTA 140 and OTA 240 to promote integration into the professional community. Topics include interview skills, resume production, conflict resolution, professional presentations, participation in research activities, and completion of all forms required for Fieldwork II. Upon completion, students should be able to independently complete employment-seeking activities and provide in-service training.

**OTA 250\*\* Life Span Skills II 2 3 0 3**

Prerequisites: None

Corequisites: PSY 241, OTA 170 and 180

This course uses knowledge gained from PSY 241 as it applies to OT practice from young



adulthood through old age. Emphasis is placed on identification/discussion of common disabilities/chronic diseases, assessments, planning and interventions used with these populations, and activity programming. Upon completion, students should be able to identify/use assessments, interventions, and activities for adults with selected disabilities/losses in various settings.

**OTA 260\*\* Fieldwork II- Placement 1 0 0 18 6**

Prerequisites: None Corequisites:None  
This course provides clinical experience under the direct supervision of experienced OTR or COTA personnel working in various practice settings. Emphasis is placed on final clinical preparation for entry-level practice in the profession. Upon completion, students should be able to meet all critical competencies established by the curriculum and AOTA guidelines for entry-level practice.

**OTA 261\*\* Fieldwork II- Placement 2 0 0 18 6**

Prerequisites: None Corequisites:None  
This course provides clinical experience under the direct supervision of experienced OTR or COTA personnel working in various practice settings. Emphasis is placed on final clinical preparation for entry-level practice in the profession. Upon completion, students should be able to meet all critical competencies established by the curriculum and AOTA guidelines for entry-level practice.

**OTA 280\*\* Professional Transitions 0 2 0 1**

Prerequisites: OTA 260 or 261  
Corequisites: OTA 260 or 261  
This course provides closure to the educational program following Fieldwork II placements. Emphasis is placed on portfolio development and presentation, program evaluation, Fieldwork II experience analysis and synthesis, and final preparation for the certification examination. Upon completion, students should be able to enter the OT work force with supportive documentation demonstrating progress toward meeting critical competencies set forth by the curriculum.

**PHYSICAL EDUCATION**

**PED 110 Fit and Well for Life 1 2 2**

Prerequisites: None Corequisites:None  
This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management,

and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 113 Aerobics I 0 3 1**  
Prerequisites: None Corequisites:None

This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 114 Aerobics II 0 3 1**  
Prerequisites: PED 113 Corequisites:None

This course provides a continuation of a program of cardiovascular fitness involving rhythmic exercise. Emphasis is placed on a wide variety of aerobic activities which include cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to participate in and design a rhythmic aerobic exercise routine. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 115 Step Aerobics 0 3 1**  
Prerequisites: None Corequisites:None

This course introduces the fundamentals of step aerobics. Emphasis is placed on basic stepping up and down on an adjustable platform; cardiovascular fitness; and upper body, floor, and abdominal exercises. Upon completion, students should be able to participate in basic step aerobics. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 116 Step Aerobics II 0 3 1**  
Prerequisites: PED 115 Corequisites:None

This course provides a continuation of step aerobics. Emphasis is placed on a wide variety of choreographed step patterns; cardiovascular fitness; and upper body, abdominal, and floor exercises. Upon completion, students should be able to participate in and design a step aerobics routine. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 117 Weight Training I** 0 3 1

Prerequisites: None Corequisites:None

This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 118 Weight Training II** 0 3 1

Prerequisites: PED 117 Corequisites: None

This course covers advanced levels of weight training. Emphasis is placed on meeting individual training goals and addressing weight training needs and interests. Upon completion, students should be able to establish and implement an individualized advanced weight training program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 125 Self-Defense-Beginning** 0 2 1

Prerequisite: None Corequisites:None

This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 126 Self-Defense-Intermediate**

0 2 1

Prerequisites: PED 125 Corequisites:None

This course is designed to aid students in building on the techniques and skills developed in PED 125. Emphasis is placed on the appropriate psychological and physiological responses to various encounters. Upon completion, students should be able to demonstrate intermediate skills in self-defense stances, blocks, punches, and kick combinations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 127 Karate** 0 3 1

Prerequisites: None Corequisites:None

This course introduces the martial arts using the Japanese Shotokan form. Topics include proper conditioning exercise, book control, proper terminology, historical foundations, and etiquette relating to karate. Upon completion, students

should be able to perform line drill techniques and Kata for various ranks. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 128 Golf-Beginning** 0 2 1

Prerequisites: None Corequisites:None

This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 129 Golf-Intermediate** 0 2 1

Prerequisites: PED 128 Corequisites:None

This course covers the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the games such as club selection, trouble shots, and course management. Upon completion, students should be able to demonstrate the knowledge and ability of play a recreational round of golf. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 130 Tennis-Beginning** 0 2 1

Prerequisites: None Corequisites:None

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 131 Tennis-Intermediate** 0 2 1

Prerequisites: PED 130 Corequisites:None

This course emphasizes the refinement of playing skills. Topics include continuing the development of fundamentals, learning advanced serves, and strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 132 Racquetball-Beginning** 0 2 1

Prerequisites: None Corequisites:None

This course introduces the fundamentals of racquetball. Emphasis is placed on rules, fundamentals, and strategies of beginning racquetball. Upon completion, students should



be able to play recreational racquetball. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 133 Racquetball-Intermediate** 0 2 1

Prerequisites: PED 132 Corequisites:None  
This course covers more advanced racquetball techniques. Emphasis is placed on refining basic skills, performing advanced shots, and playing strategies for singles and doubles. Upon completion, students should be able to play competitive racquetball. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 139 Bowling-Beginning** 0 2 1

Prerequisites: None Corequisites:None  
This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 140 Bowling-Intermediate** 0 2 1

Prerequisites: PED 139 Corequisites:None  
This course covers more advanced bowling techniques. Emphasis is placed on refining basic skills and performing advanced shots, spins, pace, and strategy. Upon completion, students should be able to participate in competitive bowling. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 143 Volleyball-Beginning** 0 2 1

Prerequisites: None Corequisites:None  
This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 144 Volleyball-Intermediate** 0 2 1

Prerequisites: PED 143 Corequisites:None  
This course covers more advanced volleyball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive volleyball. This course has been approved to satisfy the

Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 145 Basketball-Beginning** 0 2 1

Prerequisites: None Corequisites:None  
This course covers the fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational basketball. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 146 Basketball-Intermediate** 0 2 1

Prerequisites: PED 145 Corequisites:None  
This course covers more advanced basketball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to play basketball at a competitive level. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 152 Swimming-Beginning** 0 2 1

Prerequisites: None Corequisites:None  
This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 153 Swimming-Intermediate** 0 2 1

Prerequisites: PED 152 Corequisites:None  
This course is designed for those who have mastered basic swimming skills. Emphasis is placed on refining basic skills and learning new swim strokes. Upon completion, students should be able to demonstrate the four basic strokes, the scissors kick, the underwater swim, and other related skills. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 181 Snow Skiing-Beginning** 0 2 1

Prerequisites: None Corequisites:None  
This course introduces the fundamentals of snow skiing. Topics include basic techniques, safety, and equipment involved in snow skiing. Upon completion, students should be able to ski a down slope, enter and exit a ski lift, and perform basic maneuvers on skis. This course has been

approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PED 240 Advanced PE Skills** 0 2 1

Prerequisites: Demonstrated advanced skills in the specific area of physical education

Corequisites: None

This course provides those who have mastered skills in a particular physical education area the opportunity to assist with instruction. Emphasis is placed on methods of instruction, class organization, and progressive skill development. Upon completion, students should be able to design, develop, and implement a unit lesson plan for a skill they have mastered. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

## PHILOSOPHY

**PHI 215\* Philosophical Issues** 3 0 3

Prerequisites: ENG 111 Corequisites: None

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue.

**PHI 240\* Introduction to Ethics** 3 0 3

Prerequisites: ENG 111 Corequisites: None

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice.

## PHYSICS

**PHY 102 Fundamentals of Physics II**

3 2 4

Prerequisites: None Corequisites: None

This course introduces fundamental physical concepts with emphasis on applications. Topics include systems of units, problem-solving methods, graphical analysis, electrostatics, AC and DC circuits, magnetism, transformers, AC and DC motors, and generators. Upon completion, students should be able to demonstrate an understanding of the principles

studied as applied to their specific programs.

**PHY 110\* Conceptual Physics** 3 0 3

Prerequisites: None Corequisites: None

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied.

**PHY 110A\* Conceptual Physics**

Lab

0 2 1

Prerequisites: None

Corequisites: PHY 110

This course is a laboratory for PHY 110.

Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110.

Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110.

**PHY 121 Applied Physics I** 3 2 4

Prerequisites: None Corequisites: None

This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields.

**PHY 122 Applied Physics II** 3 2 4

Prerequisites: None Corequisites: None

This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Emphasis is placed on systems of units, problem-solving methods, graphical analysis, static electricity, AC and DC circuits, magnetism, transformers, AC and DC motors, and generators. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields.

**PHY 125 Health Sciences Physics** 3 2 4

Prerequisites: None Corequisites: None

This course introduces fundamental physical principles as they apply to health technologies. Topics include motion, force, work, power, simple machines, and other topics as required by the students' area of study. Upon completion, students should be able to demonstrate an understanding of the fundamental principles covered as they relate to practical applications in the health sciences.



**PHY 131 Physics-Mechanics 3 2 4**

Prerequisites: MAT 121 or 161

Corequisites: None

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

**PHY 132 Physics-Elec & Magnetism 3 2 4**

Prerequisites: PHY 131 Corequisites: None

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

**PHY 133 Physics-Sound & Light 3 2 4**

Prerequisites: PHY 131 Corequisites: None

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, wave motion, sound, light, and modern physics. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

**PHY 151\* College Physics I 3 2 4**

Prerequisites: MAT 161 or 171

Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

**PHY 152\* College Physics II 3 2 4**

Prerequisites: PHY 151

Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields,

electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

**PHY 251\* General Physics I 3 3 4**

Prerequisites: MAT 271

Corequisites: MAT 272

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

**PHY 252\* General Physics II 3 3 4**

Prerequisites: MAT 272 and PHY 251

Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

**PLASTICS****PLA 110 Introduction to Plastics 2 0 2**

Prerequisites: None

Corequisites: None

This course introduces the plastics processing industry, including thermoplastics and thermosets. Emphasis is placed on the description, classification, and properties of common plastics and processes and current trends in the industry. Upon completion, students should be able to describe the differences between thermoplastics and thermosets and recognize the basics of the different plastic processes.

**PLUMBING****PLU 110 Modern Plumbing 4 15 9**

Prerequisites: None

Corequisites: None

This course introduces the tools, equipment, and materials associated with the plumbing industry. Topics include safety, use and care of tools, recognition and assembly of fittings and pipes, and other related topics. Upon completion, students should be able to safely assemble

various pipes and fittings in accordance with state code requirements.

**PLU 120 Plumbing Applications 4 15 9**

Prerequisites: None Corequisites:None

This course covers general plumbing layout, fixtures, and water heaters. Topics include drainage, waste and vent pipes, water service and distribution, fixture installation, water heaters, and other related topics. Upon completion, students should be able to safely install common fixtures and systems in compliance with state and local building codes.

**PLU 130 Plumbing Systems 3 9 6**

Prerequisites: None Corequisites:None

This course covers the maintenance and repair of plumbing lines and fixtures. Emphasis is placed on identifying and diagnosing problems related to water, drain and vent lines, water heaters, and plumbing fixtures. Upon completion, students should be able to identify and diagnose needed repairs to the plumbing system.

**PLU 140 Intro to Plumbing Codes 1 2 2**

Prerequisites: None Corequisites:None

This course covers plumbing industry codes and regulations. Emphasis is placed on North Carolina regulations and the minimum requirements for plumbing materials and design. Upon completion, students should be able to research and interpret North Carolina plumbing codes.

**PLU 150 Plumbing Diagrams 1 2 2**

Prerequisites: None Corequisites:None

This course introduces sketching diagrams and interpretation of blueprints applicable to the plumbing trades. Emphasis is placed on plumbing plans for domestic and/or commercial buildings. Upon completion, students should be able to sketch plumbing diagrams applicable to the plumbing trades.

**POLITICAL SCIENCE**

**POL 120\* American Government 3 0 3**

Prerequisites: None Corequisites:None

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system.

**POL 130 State & Local Gov 3 0 3**

Prerequisites: None Corequisites:None

This course includes state and local political

institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**PRINTING**

**PRN 131 Flexography I 2 4 4**

Prerequisites: None Corequisites:None

This course provides basic hands-on instruction in flexographic image preparation, platemaking, mounting, and printing. Emphasis is placed on taking press measurements, making and mounting plates, and obtaining quality in press operation on a narrow-web press. Upon completion, students should be able to describe and perform flexographic production procedures in pre-press, press setup, press operation, and die-cutting.

**PRN 155 Screen Printing I 1 3 2**

Prerequisites: None Corequisites:None

This course covers screen printing techniques and materials. Topics include methods, materials, design, and image and stencil preparation techniques. Upon completion, students should be able to produce single- or multi-color projects.

**PRN 221 Offset Press Operations 1 4 3**

Prerequisites: None Corequisites:None

This course covers advanced lithographic theory and provides extensive hands-on operating experience. Emphasis is placed on make-ready, press operation, maintenance, and troubleshooting of multi-color jobs on sheet-fed offset presses and duplicators. Upon completion, students should be able to set up, run, maintain, and produce commercial-quality multi-color work.

**PRN 240 Print Estimating/  
Planning 3 0 3**

Prerequisites: GRA 121 Corequisites:None

This course covers printing economics, development of cost centers, job flow throughout departments, and material and labor costs. Topics include budgeted, hourly, cost-rate derivation; production standards and data; and analysis of other estimating procedures including computer-assisted estimating. Upon completion, students should be able to demonstrate an understanding of economic factors of the



printing industry and determine all production costs of printed jobs.

## **PSYCHOLOGY**

### **PSY 118 Interpersonal Psychology 3 0 3**

Prerequisites: None Corequisites:None

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development. This course is pending State Board Approval and restricted to the Therapeutic Massage Curriculum.

### **PSY 141 Psych of Death and**

**Dying 3 0 3**

Prerequisites: None Corequisites:None

This course presents psychological perspectives on death and dying. Topics include the culturally diverse aspects of death and the grieving process, adjustment mechanisms, interventions, and the psychological and ethical dimensions of death and dying. Upon completion, students should be able to demonstrate an understanding of the psychosocial aspects of death and dying.

### **PSY 150\* General Psychology 3 0 3**

Prerequisites: None Corequisites:None

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. This course will also include a specific emphasis upon materials related to the developmental life span.

### **PSY 241\* Developmental Psych 3 0 3**

Prerequisites: PSY 150 Corequisites: None

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span.

### **PSY 255 Intro to Exceptionality 3 0 3**

Prerequisites: PSY 150 Corequisites:None

This course introduces the psychology of the exceptional person. Topics include theoretical

perspectives, terminology, and interventions pertaining to various handicapping conditions as well as the resulting psychosocial adjustments. Upon completion, students should be able to demonstrate a basic understanding of the potentials and limitations of the exceptional person.

### **PSY 265 Behavioral Modification 3 0 3**

Prerequisites: PSY 150 Corequisites:None

This course is an applied study of factors influencing human behavior and strategies for behavioral change. Emphasis is placed on cognitive-behavioral theory, behavioral assessment, practical applications of conditioning techniques, and maintenance of adaptive behavior patterns. Upon completion, students should be able to implement basic learning principles to effect behavioral changes in self and others.

### **PSY 275 Health Psychology 3 0 3**

Prerequisites: PSY 150 Corequisites:None

This course covers the biopsychosocial dynamics of stress and the maintenance of good health. Topics include enhancing health and well-being, stress management, lifestyle choices and attitudes, the mind-body relationship, nutrition, exercise, and fitness. Upon completion, students should be able to demonstrate an understanding of the psychological factors related to health and well-being. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### **PSY 281\* Abnormal Psychology 3 0 3**

Prerequisites: PSY 150 Corequisites:None

This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques.

## **PHYSICAL THERAPIST**

### **PTA 110\*\* Intro to Physical**

**Therapy 2 3 0 3**

Prerequisites: None Corequisites:None

This course introduces the field of physical therapy including the history and standards of practice for the physical therapist assistant and basic treatment techniques. Emphasis is placed on ethical and legal considerations, universal precautions, vital signs, documentation, basic

patient preparation and treatment skills, and architectural barrier screening. Upon completion, students should be able to explain the role of the physical therapist assistant and demonstrate competence in basic techniques of patient care.

**PTA 125\*\*Gross & Functional**

**Anat** 3 6 0 5

Prerequisites: None Corequisites:None

This course provides an in-depth, clinically oriented survey of gross and functional anatomy. Emphasis is placed on musculoskeletal and nervous systems and clinical biomechanics, including goniometry, basic manual muscle testing, and components of normal gait. Upon completion, students should be able to identify specific anatomical structures and describe, observe, and measure musculoskeletal posture and function.

**PTA 135\*\*Pathology** 4 0 0 4

Prerequisites: None Corequisites:None

This course introduces principles of pathology, processes of and normal response to injury and disease, and changes related to aging. Emphasis is placed on conditions most commonly treated in physical therapy. Upon completion, students should be able to discuss basic pathological processes and identify etiology, signs, symptoms, complications, treatment options, and prognoses of specific orthopedic conditions.

**PTA 145\*\*Therapeutic Procedures** 2 6 0 4

Prerequisites: None Corequisites:None

This course provides a detailed study of specific treatment procedures and the physiological principles and techniques involved. Emphasis is placed on the correct application of superficial heat and cold, massage and soft tissue mobilization, ultrasound, diathermy, traction, and electrical stimulation. Upon completion, students should be able to demonstrate competence in the application of these modalities and explain the indications, contraindications, effects, and precautions for each.

**PTA 155\*\*PTA Clinical I** 0 0 6 2

Prerequisites: None Corequisites:None

This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

**PTA 165\*\*PTA Clinical I** 0 0 9 3

Prerequisites: None Corequisites:None

This course provides the opportunity to gain

clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

**PTA 185\*\*PTA Clinical II** 0 0 9 3

Prerequisites: None Corequisites:None

This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

**PTA 212\*\*Health Care/Resources** 2 0 0 2

Prerequisites: None Corequisites:None

This course provides an overview of various aspects of health care delivery systems and the interrelationships of health care team members. Topics include health agencies and their functions, health care team member roles, management, and other health care issues. Upon completion, students should be able to discuss the functions of health organizations and team members and aspects of health care affecting physical therapy delivery.

**PTA 215\*\*Therapeutic Exercise** 2 3 0 3

Prerequisites: None Corequisites:None

This course introduces basic concepts of strengthening, endurance, and flexibility exercise and balance, gait, and posture training. Emphasis is placed on applying techniques to the treatment of orthopedic conditions. Upon completion, students should be able to safely and effectively execute basic exercise programs and balance, gait, and posture training.

**PTA 222\*\*Professional Interactions** 2 0 0 2

Prerequisites: None Corequisites:None

This course is designed to assist in the development of effective interpersonal skills in the physical therapist assistant setting. Topics include reactions to disability, the grieving process, methods of communication, motivation, health promotion, disease prevention, and aging. Upon completion, students should be able to discuss and demonstrate methods for achieving effective interaction with patients, families, the public, and other health care providers.

**PTA 225\*\*Intro to Rehabilitation** 3 3 0 4

Prerequisites: None Corequisites:None

This course covers cardiovascular, pulmonary,



and integumentary conditions, as well as causes and treatment of amputations. Emphasis is placed upon pathological processes as well as comprehensive treatment of the various conditions studied. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.

**PTA 235\*\*Neurological Rehab** 3 6 0 5

Prerequisites: None Corequisites:None

This course covers neurological and neuromuscular conditions experienced throughout the life span. Topics include the pathology of selected conditions and the methods of rationales of various treatment approaches. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.

**PTA 245\*\*PTA Clinical III** 0 0 12 4

Prerequisites: None Corequisites:None

This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

**PTA 255\*\*PTA Clinical IV** 0 0 12 4

Prerequisites: None Corequisites:None

This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

## **RADIOGRAPHY**

### **RAD 110 Rad Intro & Patient Care**

2 3 0 3

Prerequisites: Enrollment in the Radiography program

Corequisites: RAD 111 and 151

This course provides an overview of the radiography profession and student responsibilities. Emphasis is placed on basic principles of patient care, radiation protection, technical factors, and medical terminology. Upon completion, students should be able to demonstrate basic skills in these areas:

### **RAD 111 RAD Procedures I** 3 3 0 4

Prerequisites: Enrollment in the Radiography program

Corequisites: RAD 110 and 151

This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the chest, abdomen, extremities, spine, and pelvis. Upon completion, students should be able to demonstrate competence in these areas.

### **RAD 112 RAD Procedures II** 3 3 0 4

Prerequisites: RAD 110, 111, and 151

Corequisites: RAD 121 and 161

This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, bony thorax, and gastrointestinal, biliary, and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.

### **RAD 121 Radiographic Imaging I** 2 3 0 3

Prerequisites: RAD 110, 111, and 151

Corequisites: None

This course covers factors of image quality and methods of exposure control. Topics include density, contrast, recorded detail, distortion, technique charts, manual and automatic exposure control, and tube rating charts. Upon completion, students should be able to demonstrate an understanding of exposure control and the effects of exposure factors on image quality.

### **RAD 122 Radiographic Imaging II** 1 3 0 2

Prerequisites: RAD 112, 121, and 161

Corequisites: RAD 131 and 171

This course covers image receptor systems and processing principles. Topics include film, film storage, processing, intensifying screens, grids, and beam limitation. Upon completion, students should be able to demonstrate the principles of selection and usage of imaging accessories to produce quality images.

### **RAD 131 Radiographic Physics I** 1 3 0 2

Prerequisites: RAD 112, 121, and 161

Corequisites: RAD 122 and 171

This course introduces the fundamental principles of physics that underlie diagnostic X-ray production and radiography. Topics include electromagnetic waves, electricity and magnetism, electrical energy, and power and circuits as they relate to radiography. Upon completion, students should be able to demonstrate an understanding of basic principles of physics as they relate to the operation of radiographic equipment.

**RAD 151 RAD Clinical Ed I** 0 0 6 2

Prerequisites: Enrollment in the Radiography program

Corequisites: RAD 110 and 111

This course introduces patient management and basic radiographic procedures in the clinical setting. Emphasis is placed on mastering positioning of the chest and extremities, manipulating equipment, and applying principles of ALARA. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

**RAD 161 RAD Clinical Ed II** 0 0 15 5

Prerequisites: RAD 110, 111, and 151

Corequisites: RAD 112 and 121

This course provides additional experience in patient management and in more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

**RAD 171 RAD Clinical Ed III** 0 0 12 4

Prerequisites: RAD 112, 121, and 161

Corequisites: RAD 122 and 131

This course provides experience in patient management specific to fluoroscopic and advanced radiographic procedures. Emphasis is placed on applying appropriate technical factors to all studies and mastering positioning of gastrointestinal and urological studies. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

**RAD 211 RAD Procedures III** 2 3 0 3

Prerequisites: RAD 122

Corequisites: RAD 231, 241, and 251

This course provides the knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis is placed on radiographic specialty procedures, pathology, and advanced imaging. Upon completion, students should be able to demonstrate competence in these areas.

**RAD 231 Radiographic Physics II** 1 3 0 2

Prerequisites: RAD 171

Corequisites: RAD 211, 241, and 251

This course continues the study of physics that underlie diagnostic X-ray production and radiographic and fluoroscopic equipment. Topics include X-ray production, electromagnetic interactions with matter, X-ray devices, equipment circuitry, targets, filtration, and dosimetry. Upon completion, students should be able to demonstrate an understanding of the

application of physical concepts as related to image production.

**RAD 241 Radiation Protection** 2 0 0 2

Prerequisites: RAD 122, 131, and 171

Corequisites: RAD 211, 231, and 251

This course covers the principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices. Upon completion, students should be able to demonstrate an understanding of the effects and uses of radiation in diagnostic radiology.

**RAD 245 Radiographic Analysis** 2 3 0 3

Prerequisites: RAD 251

Corequisites: RAD 261

This course provides an overview of imaging concepts and introduces methods of quality assurance. Topics include a systematic approach for image evaluation and analysis of imaging service and quality assurance. Upon completion, students should be able to establish and administer a quality assurance program and conduct a critical review of images.

**RAD 251 RAD Clinical Ed IV** 0 0 21 7

Prerequisites: RAD 122, 131, and 171

Corequisites: RAD 211, 231, and 241

This course provides the opportunity to continue mastering all basic radiographic procedures and to attain experience in advanced areas. Emphasis is placed on equipment operation, pathological recognition, pediatric and geriatric variations, and a further awareness of radiation protection requirements. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

**RAD 261 RAD Clinical Ed V** 0 0 21 7

Prerequisites: RAD 251

Corequisites: RAD 245

This course is designed to enhance expertise in all radiographic procedures, patient management, radiation protection, and image production and evaluation. Emphasis is placed on developing an autonomous approach to the diversity of clinical situations and successfully adapting to those procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

**RAD 282 RAD Clinical Elective** 0 0 6 2

Prerequisites: Enrollment in the Radiography program

Corequisites: None

This course provides advanced knowledge of clinical applications. Emphasis is placed on enhancing clinical skills. Upon completion,



students should be able to successfully complete the clinical course objectives.

## **RESPIRATORY CARE**

### **RCP 110 Intro to Respiratory Care 3 3 0 4**

Prerequisites: Enrollment in the Respiratory Care program

Corequisites: None

This course introduces the respiratory care profession. Topics include the role of the respiratory care practitioner, medical gas administration, basic patient assessment, infection control, and medical terminology. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

### **RCP 111 Therapeutics/Diagnostics 4 3 0 5**

Prerequisites: RCP 110 Corequisites:None

This course is a continuation of RCP 110.

Emphasis is placed on entry-level therapeutic and diagnostic procedures used in respiratory care.

Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

### **RCP 112 Patient Management 3 3 0 4**

Prerequisites: RCP 111 Corequisites:None

This course provides entry-level skills in adult/pediatric mechanical ventilation and respiratory care procedures in traditional and alternative settings. Emphasis is placed on therapeutic modalities and physiological effects of cardiopulmonary rehabilitation, home care, mechanical ventilation, and monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

### **RCP 113 RCP Pharmacology 2 0 0 2**

Prerequisites: Enrollment in the Respiratory Care program

Corequisites: None

This course covers the drugs used in the treatment of cardiopulmonary diseases. Emphasis is placed on the uses, actions, indications, administration, and hazards of pharmacological agents. Upon completion, students should be able to demonstrate competence through written evaluations.

### **RCP 114 C-P Anatomy & Physiology 3 0 0 3**

Prerequisites: BIO 163; or BIO 165 and 166; or BIO 168 and 169

Corequisites: None

This course provides a concentrated study of cardiopulmonary anatomy and physiology essential to the practice of respiratory care.

Emphasis is placed on cardiovascular and pulmonary physiology, acid/base balance, and blood gas interpretation. Upon completion, students should be able to demonstrate competence in these concepts through written evaluation.

### **RCP 115 C-P Pathophysiology 2 0 0 2**

Prerequisites: BIO 163 Corequisites:None

This course introduces the etiology, pathogenesis, and physiology of cardiopulmonary diseases and disorders. Emphasis is placed on clinical signs and symptoms along with diagnoses, complications, prognoses, and management. Upon completion, students should be able to demonstrate competence in these concepts through written evaluations.

### **RCP 122 Special Practice Lab 0 2 0 1**

Prerequisites: Enrollment in the Respiratory Care program

Corequisites: None

This course provides additional laboratory learning opportunities in respiratory care.

Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.

### **RCP 123 Special Practice Lab 0 3 0 1**

Prerequisites: Enrollment in the Respiratory Care program

Corequisites: None

This course provides additional laboratory learning opportunities in respiratory care.

Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.

### **RCP 132 RCP Clinical Practice I 0 0 6 2**

Prerequisites: Enrollment in the Respiratory Care program

Corequisites: RCP 110

This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

### **RCP 145 RCP Clinical Practice II 0 0 15 5**

Prerequisites: RCP 110

Corequisites: RCP 111

This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

**RCP 153 RCP Clinical Practice III 0 0 9 3**

Prerequisites: RCP 111 Corequisites: None

This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

**RCP 210 Critical Care Concepts 3 3 0 4**

Prerequisites: Successful completion of three semesters of the Respiratory Care program

Corequisites: None

This course provides further refinement of acute patient care and underlying pathophysiology. Topics include a continuation in the study of mechanical ventilation, underlying pathophysiology, and introduction of critical care monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

**RCP 211 Adv Monitoring/Procedures 3 3 0 4**

Prerequisites: RCP 210 Corequisites: None

This course includes advanced information gathering and decision making for the respiratory care professional. Topics include advanced cardiac monitoring and special procedures. Upon completion, students should be able to evaluate, design, and recommend appropriate care plans through written and laboratory evaluations.

**RCP 214 Neonatal/Ped's RC 1 3 0 2**

Prerequisites: RCP 111 Corequisites: None

This course provides in-depth coverage of the concepts of neonatal and pediatric respiratory care. Emphasis is placed on neonatal and pediatric pathophysiology and on the special therapeutic needs of neonates and children. Upon completion, students should be able to demonstrate competence in these concepts through written and laboratory evaluations.

**RCP 215 Career Prep-Adv Level 0 3 0 1**

Prerequisites: Enrollment in the Respiratory Care program

Corequisites: None

This course provides preparation for employment and the advanced-level practitioner credentialing exam. Emphasis is placed on review of the NBRC Advanced-Level Practitioner Exam and supervision and management. Upon completion, students should be able to successfully complete the appropriate self-assessment examinations and meet the requirements for employment.

**RCP 223 Special Practice Lab 0 3 0 1**

Prerequisites: Enrollment in the Respiratory Care program

Corequisites: None

This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.

**RCP 236 RCP Clinical Practice IV 0 0 18 6**

Prerequisites: RCP 111

Corequisites: RCP 210

This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

**RCP 247 RCP Clinical Practice V 0 0 21 7**

Prerequisites: RCP 210

Corequisites: RCP 211

This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

**REAL ESTATE APPRAISAL****REA 101 Intro Real Est App R-1 2 0 2**

Prerequisites: None Corequisites: None

This course introduces the entire valuation process, with specific coverage of residential neighborhood and property analysis. Topics include basic real property law, concepts of value and operation of real estate markets, mathematical and statistical concepts, finance, and residential construction/design. Upon completion, students should be able to demonstrate adequate preparation for REA 102.

**REA 102 Valuation Prin &****Prac R-2 2 0 2**

Prerequisites: REA 101 Corequisites: None

This course introduces procedures used to develop an estimate of value and how the various principles of value relate to the application of such procedures. Topics include the sales comparison approach, site valuation, sales comparison, the cost approach, the income approach, and reconciliation. Upon completion, students should be able to complete the Uniform Residential Appraisal Report (URAR).

**REA 103 Applied Res Prop Val R-3 2 0 2**

Prerequisites: REA 102 Corequisites: None

This course covers the laws and standards



practiced by appraisers in the appraisal of residential 1-4 unit properties and small farms. Topics include Financial Institutions Reform and Recovery Enforcement Act (FIRREA), Uniform Standards of Professional Appraisal Practice (USPAP), and North Carolina statutes and rules. Upon completion, students should be able to demonstrate eligibility to sit for the NC Appraisal Board license trainee examination and to enroll in REA 201.

#### **REA 201 Intro Income Prop**

##### **App G-1**

2 0 2

Prerequisites: REA 103 Corequisites: None

This course introduces concepts and techniques used to appraise real estate income properties. Topics include real estate market analysis, property analysis and site valuation, how to use financial calculators, present value, NOI, and before-tax cash flow. Upon completion, students should be able to estimate income property values using direct capitalization and to sit for the NC Certified Residential Appraiser examination.

#### **REA 202 Adv Inc Capital**

##### **Proc G-2**

2 0 2

Prerequisites: REA 201

Corequisites: A financial calculator is required for this course

This course expands direct capitalization techniques and introduces yield capitalization. Topics include yield rates, discounted cash flow, financial leverage, and traditional yield capitalization formulas. Upon completion, students should be able to estimate the value of income producing property using yield capitalization techniques.

#### **REA 203 Applied Inc Prop Val G-3**

2 0 2

Prerequisites: REA 202 Corequisites: None

This course covers the laws, rules, and standards pertaining to the principles and practices applicable to the appraisal of income properties. Topics include FIRREA, USPAP, Uniform Commercial and Industrial Appraisal Report (UCIAR) form, North Carolina statutes and rules, and case studies. Upon completion, students should be able to prepare a narrative report that conforms to the USPAP and sit for the NC Certified General Appraisal examination.

### **READING**

#### **RED 070 Essential Reading Skills**

3 2 4

Prerequisites: None Corequisites:None

This course is designed for those with limited reading skills. Emphasis is placed on basic word attack skills, vocabulary, transitional words, paragraph organization, basic comprehension skills, and learning strategies. Upon completion, students should be able to demonstrate

competence in the skills required for RED 080.

#### **RED 080 Intro to College Reading**

3 2 4

Prerequisites: RED 070 or ENG 075

Corequisites: None

This course introduces effective reading and inferential thinking skills in preparation for RED 090. Emphasis is placed on vocabulary, comprehension, and reading strategies. Upon completion, students should be able to determine main ideas and supporting details, recognize basic patterns of organization, draw conclusions, and understand vocabulary in context.

#### **RED 090 Improved College Reading**

3 2 4

Prerequisites: RED 080 or ENG 085

Corequisites: None

This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing author's purpose, tone, and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level reading material.

### **RELIGION**

#### **REL 110\* World Religions**

3 0 3

Prerequisite: None Corequisites:None

This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.

#### **REL 211\* Intro to Old Testament**

3 0 3

Prerequisite: None Corequisites:None

This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature.

#### **REL 212\* Intro to New Testament**

3 0 3

Prerequisite: None Corequisites:None

This course is a survey of the literature of first century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature.

#### **REL 221\* Religion in America**

3 0 3

Prerequisite: None Corequisites:None

This course is an examination of religious beliefs

and practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America.

**REAL ESTATE**

**RLS 112 Real Estate Fundamentals** 4 0 4

Prerequisites: None Corequisites:None  
This course provides basic instruction in real estate principles and practices. Topics include law, finance, brokerage, closing, valuation, management, taxation, mathematics, construction, land use, property insurance, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate basic knowledge and skills necessary for real estate sales.

**RLS 113 Real Estate Mathematics** 2 0 2

Prerequisites: None Corequisites:None  
This course provides basic instruction in business mathematics applicable to real estate situations. Topics include area computations, percentage of profit/loss, bookkeeping and accounting methods, appreciation and depreciation, financial calculations and interest yields, property valuation, insurance, taxes, and commissions. Upon completion, students should be able to demonstrate proficiency in applied real estate mathematics.

**RLS 114 Real Estate Brokerage** 2 0 2

Prerequisites: RLS 112 or current Real Estate license

Corequisites: None  
This course provides basic instruction in the various real estate brokerage operations, including trust account records and procedures. Topics include establishing a brokerage firm, management concepts and practices, personnel and training, property management, advertising and publicity, records and bookkeeping systems, and financial operations. Upon completion, students should be able to establish, operate, and manage a realty brokerage practice in a manner which protects and serves the public interest.

**RLS 115 Real Estate Finance** 2 0 2

Prerequisites: RLS 112 or current Real Estate license

Corequisites: None  
This course provides advanced instruction in financing real estate transactions and real property valuation. Topics include sources of mortgage funds, financing instruments, mortgage types, loan underwriting, essential mathematics,

and property valuation. Upon completion, students should be able to demonstrate knowledge of real estate finance necessary to act as real estate brokers.

**RLS 116 Real Estate Law** 2 0 2  
Prerequisites: RLS 112 or current Real Estate license

Corequisites: None  
This course provides advanced instruction in legal aspects of real estate brokerage. Topics include property ownership and interests, brokerage relationships, agency law, contracts, settlement statements, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate knowledge of laws relating to real estate brokerage necessary to act as real estate brokers.

**RADIATION THERAPY**

**RTT 121 Special Imaging** 2 0 0 2

Prerequisites: RAD 121 and RTT 151  
Corequisites: RTT 161  
This course introduces special imaging modalities including computed tomography and magnetic resonance imaging. Emphasis is placed on the comparison of computed tomography and magnetic resonance imaging for the visualization of various neoplasms. Upon completion, students should be able to demonstrate proper utilization of special imaging modalities relative to radiation treatment planning.

**RTT 151 RTT Clinical Ed II** 0 0 9 3

Prerequisites: RAD 110, 111, and 151  
Corequisites: RAD 121  
This course provides additional experience in patient management and in the more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

**RTT 161 RTT Clinical Ed III** 0 0 6 2

Prerequisites: RAD 121 and RTT 151  
Corequisites: RTT 121  
This course provides the opportunity to become proficient in basic procedures and gain experience in advanced areas. Emphasis is placed on special imaging areas to include computed tomography and magnetic resonance imaging with an introduction to radiation therapy. Upon completion, students should be able to demonstrate successful completion of clinical objectives.



**RTT 210 Radiobiology 2 0 0 2**

Prerequisites: RTT 161

Corequisites: RTT 220, 221, 230 or 233, and RTT 238 or 240

This course focuses on the biological effects of ionizing radiation, tissue sensitivity, and tissue response to radiation. Emphasis is placed on methods of radiation protection applicable to tumor localization and treatment delivery. Upon completion, students should be able to demonstrate an understanding of the effects of ionizing radiation on the body.

**RTT 220 Rad Therapy Orientation 2 0 0 2**

Prerequisites: RTT 161

Corequisites: RTT 210, 221, 230 or 233, and RTT 238 or 240

This course introduces the operations of radiation therapy departments. Emphasis is placed on patient care in the clinical setting, familiarization with therapy equipment, and the role of the radiation therapist. Upon completion, students should be able to demonstrate an understanding of the roles of a radiation therapist.

**RTT 221 Clinical Oncology I 2 0 0 2**

Prerequisites: RTT 161

Corequisites: RTT 210, 220, 230 or 233, and RTT 238 or 240

This course introduces the principles of carcinogenesis and neoplasia. Emphasis is placed on cancer development in relation to specific anatomical sites. Upon completion, students should be able to recognize factors related to cancer development and state treatment options for each anatomical site included.

**RTT 222 Clinical Oncology II 2 0 0 2**

Prerequisites: RTT 238 or 240

Corequisites: BIO 271 and RTT 231, 239, 241, 243, or 244

This course continues the study of neoplasia in relation to specific anatomical systems. Emphasis is placed on cancer development in relation to specific anatomical sites. Upon completion, students should be able to recognize factors related to cancer development and state treatment options for each anatomical site included.

**RTT 230 Rad Therapy Physics 3 0 0 3**

Prerequisites: RTT 121

Corequisites: RTT 210, 220, 221, and RTT 238 or 240

This course provides a study of the interaction of radiation with matter. Emphasis is placed on atomic interactions and dose measurement techniques. Upon completion, students should be able to demonstrate a knowledge of radiation interactions and dose measurement procedures as they apply to radiation safety.

**RTT 231 Dosimetry 3 0 0 3**

Prerequisites: RTT 238 or 240

Corequisites: RTT 222 and RTT 239, 241, 243, or 244

This course is a study of clinical dosimetry and treatment planning. Emphasis is placed on treatment planning techniques and beam arrangements. Upon completion, students should be able to demonstrate a knowledge of dosimetry procedures used to treat various neoplasms.

**RTT 232 Rad Therapy Procedures 2 0 0 2**

Prerequisites: RTT 222, 231 or 234, and RTT 239, 241, 243, or 244

Corequisites: RTT 246

This course covers routine and new techniques in simulation and treatment procedures. Emphasis is placed on treatment choices relative to the tumor site and modality selected. Upon completion, students should be able to demonstrate an understanding of basic and advanced treatment procedures.

**RTT 238 RTT Clinical Ed IV 0 2 15 6**

Prerequisites: RTT 161

Corequisites: RTT 210, 220, 221, and RTT 230 or 233

This course provides clinical experience in the use of equipment and patient positioning in both simulation and delivery of radiation therapy treatments. Emphasis is placed on the varied aspects of the radiation therapy department and patient progression through evaluation, treatment, and follow-up. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

**RTT 239 RTT Clinical Ed V 0 2 18 7**

Prerequisites: RTT 210, 220, 221, and RTT 230 or 233

Corequisites: RTT 222 and RTT 231 or 234

This course provides additional experience in patient management. Emphasis is placed on the development and refinement of technical skills within the radiation therapy department. Upon completion, students should be able to demonstrate successful completion of objectives.

**RTT 246 RTT Clinical Ed VI 0 0 18 6**

Prerequisites: RTT 239, 241, 243, or 244

Corequisites: RTT 232

This course promotes clinical practice on a more independent level of performance. Emphasis is placed on the utilization of equipment, patient care techniques, and treatment considerations for more complicated radiation therapy procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.



## RV MAINTENANCE & REPAIR

### RVM 110 Intro to RV 2 0 2

Prerequisites: None Corequisites:None

This course covers the use of basic hand tools and equipment used in the repair of recreational vehicles. Topics include service area safety practices, technician liability, service documentation, classification, manufacturer's manuals, procedures, industrial codes and standards. Upon completion, students should be able to begin service and maintenance procedures on all classifications of recreational vehicles.

### RVM 112 RV Preventive Maint. 1 2 2

Prerequisites: None Corequisites:None

This course is designed to acquaint students with the procedures necessary to complete routine inspections and maintenance of the RV.

Emphasis is placed on techniques and procedures to insure a RV's safe and dependable operation. Upon completion, students should be able to do visual inspections, periodic checks and tests, equipment adjustments, fluid replacement, lubrication, filter changes, and belt replacement.

### RVM 115 Pre-Delivery Inspection 1 2 2

Prerequisites: None Corequisites:None

This course covers the pre-delivery preparation necessary for new units to be ready for the customer on delivery of the vehicle. Topics include following original equipment manufacturer's (OEM) guidelines and checklists to insure that all systems and components are in working order. Upon completion, students should be able to follow prescribed checklist to perform pre-delivery inspections.

### RVM 125 RV Electrical Systems 2 6 4

Prerequisites: None Corequisites:None

This course includes basic electrical concepts, AC/DC circuit fundamentals, test equipment operation, and interpretation. Emphasis is placed on the study of various RV systems and appliances as to their operation, diagnosis, and repair. Upon completion, students should be able to troubleshoot, repair or replace electrical circuits and components and auxiliary systems in RV's.

### RVM 130 LP Gas Sys/Appliances 1 2 2

Prerequisites: None Corequisites:None

This course introduces the fundamental operation of liquified petroleum gas as a power supply in recreational vehicles. Topics include propane gas distribution systems, water heaters, ranges, refrigerators, furnaces, ice makers, LP gas characteristics, codes, and safety procedures. Upon completion, students should be able to safely inspect, troubleshoot, repair or replace LP gas distribution system components according to

industry and government standards.

### RVM 140 Brake, Towing/

#### Suspensions

1 2 2

Prerequisites: None Corequisites:None

This course provides an overview of primary and auxiliary suspension systems, towing and electric brake systems. Emphasis is placed on the skills to inspect, install, troubleshoot, repair or replace suspension, electric brake and towing systems and their component parts. Upon completion, students should be able to service and maintain these systems on all types of recreational vehicles.

### RVM 150 Air Conditioning Systems 1 2 2

Prerequisites: None Corequisites:None

This course introduces basic refrigeration theory and operating principles. Topics include the Clean Air Act and mandatory certification in handling CFC's, methods of CFC recovery and recycling, installation, troubleshooting, repair and replacement of components. Upon completion, students should be able to inspect, diagnose, and repair RV air conditioning systems.

### RVM 160 RV Water Systems 2 4 4

Prerequisites: None Corequisites:None

This course is designed to introduce students to the various water systems in a recreational vehicle. Topics include the operation, troubleshooting, repair and/or replacement of fresh and waste water systems and components found in a recreational vehicle. Upon completion, students should be able to inspect, diagnose, and repair RV water systems.

### RVM 170 RV Fluid Power 1 2 2

Prerequisites: None Corequisites:None

This course provides an overview of fluid power principles, concepts, and applications utilized in recreational vehicles. Emphasis is placed on pneumatic and hydraulic power generation, controls, and activation devices found in recreational vehicles. Upon completion, students should be able to do visual inspections, periodic checks and tests with equipment, and repair fluid power systems and components as needed.

### RVM 180 Heating/Mechanical Syst. 1 3 2

Prerequisites: RVM 130 Corequisites:None

This course covers the operation, maintenance, and replacement of RV heating and other mechanical systems. Topics include troubleshooting, repair and replacement of furnaces, other components, and the basic principles of gears, levers, pulleys, solids, liquids, and gases in RV's. Upon completion, students should be able to provide routine inspection, maintenance and repair of heating and other mechanical systems in RV's.

**RVM 190 Interior/Exterior Coach 2 4 4**

Prerequisites: None Corequisites:None

This course introduces structural characteristics of the interior and exterior components of recreational vehicles, including accessories. Topics include interior cabinetry, furniture, hardware, paneling, fabrics, windows, doors, exterior sidewalls, roofing, locating and repairing water and air leaks, body repair, and painting. Upon completion, students should be able to work with wood, metal, plastic, and cloth for making interior and exterior repairs on recreational vehicles.

**SPEECH/LANGUAGE PATHOLOGY****SLP 111 Intro to Sp-Lan Patho 3 0 0 3**

Prerequisites: None Corequisites:None

This course provides an overview of the theory, practice, and philosophy of speech-language pathology assisting. Topics include legal and ethical issues, scope of practice, multiculturalism, and diversity. Upon completion, students should be able to describe characteristics of the profession and identify components of safe and ethical practice.

**SLP 112 SLP Anatomy & Physiology 3 0 0 3**

Prerequisites: BIO 163, 166, or 169

Corequisites: None

This course introduces the basic pathophysiology of the orofacial and thoracic structures of the human body. Emphasis is placed on the most commonly treated speech, language, and hearing disorders. Upon completion, students should be able to identify and describe basic pathophysiology related to the production of speech and hearing.

**SLP 120 SLP Admin Office Proc 2 0 0 2**

Prerequisites: Enrollment in the SLP program

Corequisites: None

This course covers organizational and functional skills appropriate to the speech-language pathology workplace. Emphasis is placed on scheduling, office etiquette, operation of office equipment, time management, and quality issues. Upon completion, students should be able to demonstrate correct operation of office equipment and work cooperatively and effectively within the speech-language pathology professional environment.

**SLP 130 Phonetics/Speech Patterns 2 2 0 3**

Prerequisites: Enrollment in the SLP program

Corequisites: None

This course introduces the International Phonetic Alphabet and the categories of speech sounds,

including voice, place, and manner of production. Emphasis is placed on the accurate transcription of normal and abnormal speech samples using the IPA and on the production of effective natural speech. Upon completion, students should be able to transcribe and categorize speech sounds and understand the relationship between respiration, articulation, and phonation during natural speech.

**SLP 140 Normal Communication 3 0 0 3**

Prerequisites: Enrollment in the SLP program

Corequisites: None

This course introduces normal verbal and non-verbal communications across the life span, including appropriate social interaction with diverse populations. Topics include normal speech, language, and hearing in a multicultural society and an introduction to screening for normality and abnormality. Upon completion, students should be able to identify normal speech, language, and hearing patterns.

**SLP 211 Disorders & Treatment I 3 2 0 4**

Prerequisites: SLP 111, 112, 130, and 140

Corequisites: None

This course covers screening for speech, language, and hearing disorders; use of observational checklists; and administration of therapeutic protocols. Emphasis is placed on conditions commonly treated in speech-language pathology. Upon completion, students should be able to accurately administer screening tests and therapeutic protocols and identify characteristics of developmental speech, language, and hearing disorders.

**SLP 212 Disorders & Treatment II 3 2 3 5**

Prerequisites: SLP 211 Corequisites:None

This course is a continuation of SLP 211 and includes an introduction to clinical settings. Emphasis is placed on acquired conditions commonly treated in speech-language pathology. Upon completion, students should be able to accurately administer screening tests and therapeutic protocols and identify characteristics of acquired speech, language, and hearing disorders.

**SLP 220 Assistive Technology 1 2 0 2**

Prerequisites: SLP 111, 130, and 140

Corequisites: SLP 211

This course introduces the preparation, use, and maintenance of selected communication equipment in the treatment of respective disorders. Emphasis is placed on the collaborative use of assistive equipment for speech, language, and hearing disorders. Upon completion, students should be able to instruct



the patient and caregiver in the use and maintenance of assistive communication equipment.

**SLP 230 SLP Fieldwork** 0 0 12 4

Prerequisites: SLP 211

Corequisites: SLP 212 and 231

This course provides supervised fieldwork experience in speech-language pathology assisting in a minimum of two diverse sites. Emphasis is placed on the use of written protocols in providing patient care. Upon completion, students should be able to integrate ethical concepts into safe and effective clinical practice.

**SLP 231 SLP Fieldwork Seminar** 3 0 0 3

Prerequisites: SLP 211

Corequisites: SLP 212 and 230

This course provides an opportunity to discuss fieldwork experiences with peers and faculty. Emphasis is placed on management of clinical problems, conflict resolution, and job seeking and retention skills. Upon completion, students should be able to meet entry-level requirements for speech-language pathology assistants.

## SOCIOLOGY

**SOC 210\* Introduction to Sociology** 3 0 3

Prerequisites: None Corequisites:None

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies.

**SOC 213\* Sociology of the Family** 3 0 3

Prerequisites: None Corequisites: None

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change.

**SOC 215 Group Processes** 3 0 3

Prerequisites: None Corequisites: None

This course introduces group processes and dynamics. Emphasis is placed on small group experiences, roles and relationships within groups, communication, cooperation and conflict resolution, and managing diversity within and among groups. Upon completion, students

should be able to demonstrate the knowledge and skills essential to analyze group interaction and to work effectively in a group context.

## MEDICAL SONOGRAPHY

**SON 110 Intro to Sonography** 1 3 3 3

Prerequisites: Enrollment in the Medical Sonography or Cardiovascular Sonography programs

Corequisites: SON 130

This course provides an introduction to medical sonography. Topics include applications, sonographic terminology, history, patient care, ethics, and basic skills. Upon completion, students should be able to define professionalism and sonographic applications and perform basic patient care skills and preliminary scanning techniques.

**SON 111 Sonographic Physics** 3 3 0 4

Prerequisites: CVS 163 or SON 110

Corequisites: None

This course introduces ultrasound physical principles, bioeffects, and sonographic instrumentation. Topics include sound wave mechanics, transducers, sonographic equipment, Doppler physics, bioeffects, and safety. Upon completion, students should be able to demonstrate knowledge of sound wave mechanics, transducers, sonography equipment, the Doppler effect, bioeffects, and safety.

**SON 120 SON Clinical Ed I** 0 0 15 5

Prerequisites: SON 110 Corequisites: None

This course provides active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

**SON 121 SON Clinical Ed II** 0 0 15 5

Prerequisites: SON 120 Corequisites: None

This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

**SON 130 Abdominal Sonography I** 2 3 0 3

Prerequisites: Enrollment in the Medical Sonography program

Corequisites: None

This course introduces abdominal and small parts sonography. Emphasis is placed on the sonographic anatomy of the abdomen and small parts with correlated laboratory exercises. Upon completion, students should be able to recognize and acquire basic abdominal and small parts images.



**SON 131 Abdominal****Sonography II 1 3 0 2**

Prerequisites: SON 130 Corequisites: None

This course covers abdominal and small parts pathology recognizable on sonograms. Emphasis is placed on abnormal sonograms of the abdomen and small parts with correlated sonographic cases. Upon completion, students should be able to recognize abnormal pathological processes in the abdomen and on small parts sonographic examinations.

**SON 140 Gyn Sonography 2 0 0 2**

Prerequisites: SON 110 or enrollment in the Medical Sonography program and SON 130

Corequisites: None

This course is designed to relate gynecological anatomy and pathology to sonography. Emphasis is placed on gynecological relational anatomy, endovaginal anatomy, and gynecological pathology. Upon completion, students should be able to recognize normal and abnormal gynecological sonograms.

**SON 220 SON Clinical Ed III 0 0 24 8**

Prerequisites: SON 121 Corequisites: None

This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

**SON 221 SON Clinical Ed IV 0 0 24 8**

Prerequisites: SON 220 Corequisites: None

This course provides continued active participation off campus in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

**SON 225 Case Studies 0 3 0 1**

Prerequisites: SON 110 and 131

Corequisites: None

This course offers the opportunity to present interesting cases found during clinical education. Emphasis is placed on presentation methods which integrate patient history, laboratory results, and sonographic findings with reference to current literature. Upon completion, students should be able to correlate information necessary for complete presentation of case studies.

**SON 241 Obstetrical****Sonography I 2 0 0 2**

Prerequisites: SON 110 or enrollment in the Medical Sonography certificate program and SON 121

Corequisites: None

This course covers normal obstetrical sonography techniques, the normal fetal environment, and abnormal first trimester pregnancy states. Topics include gestational dating, fetal anatomy, uterine environment, and first trimester complications.

Upon completion, students should be able to produce gestational sonograms which document age, evaluate the uterine environment, and recognize first trimester complications.

**SON 242 Obstetrical****Sonography II 2 0 0 2**

Prerequisites: SON 241 Corequisites: None

This course covers second and third trimester obstetrical complications and fetal anomalies.

Topics include abnormal fetal anatomy and physiology and complications in the uterine environment. Upon completion, students should be able to identify fetal anomalies, fetal distress states, and uterine pathologies.

**SON 250 Vascular Sonography 1 3 0 2**

Prerequisites: SON 111, 121, and 274

Corequisites: None

This course provides an in-depth study of the anatomy and pathology of the vascular system.

Topics include peripheral arterial, peripheral venous, and cerebrovascular disease testing.

Upon completion, students should be able to identify normal vascular anatomy and recognize pathology of the vascular system.

**SON 272 Advanced Pathology 0 3 0 1**

Prerequisites: SON 110 or enrollment in the Medical Sonography program and SON 131 and SON 241

Corequisites: None

This course is designed to concentrate on complex pathological states seen on sonograms. Emphasis is placed on systemic diseases and multi-organ disease states as seen on sonograms. Upon completion, students should be able to research, present, and discuss system diseases presented on sonograms.

**SON 274 Neurosonology 2 0 0 2**

Prerequisites: SON 110 or enrollment in the Medical Sonography program

Corequisites: None

This course covers the applications of sonography in neurology. Topics include neurological problems as documented by sonography. Upon completion, students should be able to demonstrate the techniques for

documenting neurological anatomy and pathological conditions as seen on sonograms.

**SON 276 Fetal Echocardiography 1 0 0 1**  
Prerequisites: Enrollment in the Medical Sonography or Cardiovascular Sonography programs and SON 241

Corequisites: None  
This course introduces the normal and abnormal development of the fetal heart with correlation to sonographic evaluation. Emphasis is placed on cardiac anatomy and physiology in the normal fetus as well as cardiac defects. Upon completion, students should be able to identify and evaluate normal and abnormal fetal cardiac structures.

**SON 289 Sonographic Topics 2 0 0 2**  
Prerequisites: SON 220  
Corequisites: SON 221

This course provides an overview of sonographic topics in preparation for certification examinations. Emphasis is placed on registry preparation. Upon completion, students should be able to demonstrate a comprehensive knowledge of sonography and be prepared for the registry examinations.

**SPANISH**

**SPA 110 Introduction to Spanish 2 0 2**  
Prerequisite: None Corequisites:None  
This course provides an introduction to understanding, speaking, reading, and writing Spanish. Emphasis is placed on pronunciation, parts of speech, communicative phrases, culture, and skills for language acquisition. Upon completion, students should be able to identify and apply basic grammar concepts, display cultural awareness, and communicate in simple phrases in Spanish.

**SPA 111\* Elementary Spanish I 3 0 3**  
Prerequisites: None Corequisites:None  
This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.

**SPA 112\* Elementary Spanish II 3 0 3**  
Prerequisites: SPA 111 Corequisites:None  
This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing

proficiency to spoken and written Spanish and demonstrate further cultural awareness.

**SPA 120 Spanish for the Workplace 3 0 3**  
Prerequisite: None Corequisites:None  
This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

**SPA 141 Culture and Civilization 3 0 3**  
Prerequisites: None Corequisites:None  
This course provides an opportunity to explore issues related to the Hispanic world. Topics include historical and current events, geography, and customs. Upon completion, students should be able to identify and discuss selected topics and cultural differences related to the Hispanic world. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**SPA 161 Cultural Immersion 2 3 3**  
Prerequisite: SPA 111 Corequisites:None  
This course explores Hispanic culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**SPA 181 Spanish Lab 1 0 2 1**  
Prerequisites: None Corequisites:None  
This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**SPA 182 Spanish Lab 2 0 2 1**  
Prerequisites: SPA 181 Corequisites:None  
This course provides an opportunity to enhance



acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**SPA 211\* Intermediate Spanish I 3 0 3**

Prerequisites: SPA 112 Corequisites:None

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

**SPA 212\* Intermediate Spanish II 3 0 3**

Prerequisites: SPA 211 Corequisites:None

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

**SPA 215 Spanish Phonetics and the Structure of Language 3 0 3**

Prerequisites: None Corequisites:None

This course is designed to improve the understanding of Spanish phonetics and the structure of the Spanish language. Topics include the structure of the Spanish language, phonology, morphology, and syntax. Upon completion, students should be able to contrast the structure of the Spanish and English languages.

**SPA 221 Spanish Conversation 3 0 3**

Prerequisites: SPA 212 Corequisites:None

This course provides an opportunity for intensive communication in spoken Spanish. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**SPA 231 Reading and Composition 3 0 3**

Prerequisites: SPA 212 Corequisites:None

This course provides an opportunity for intensive

reading and composition in Spanish. Emphasis is placed on the use of literary and cultural materials to enhance and expand reading and writing skills. Upon completion, students should be able to demonstrate in writing an in-depth understanding of assigned readings. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**SPA 281 Spanish Lab 3 0 2 1**

Prerequisites: SPA 182 Corequisites:None

This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**SPA 282 Spanish Lab 4 0 2 1**

Prerequisites: SPA 281 Corequisites:None

This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

## SOCIAL WORK

**SWK 113 Working with Diversity 3 0 3**

Prerequisites: None Corequisites:None

This course examines and promotes understanding, sensitivity, awareness, and knowledge of human diversity. Emphasis is placed on professional responsibilities, duties, and skills critical to multicultural human services practice. Upon completion, students should be able to integrate and expand knowledge, skills, and cultural awareness relevant to diverse populations. This course is pending State Board Approval.

## WELDING

**WLD 110 Cutting Processes 1 3 2**

Prerequisites: None Corequisites:None

This course introduces oxy-fuel and plasma-arc



cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

**WLD 112 Basic Welding Processes 1 3 2**

**Prerequisites:** None      **Corequisites:**None  
This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

**WLD 115 SMAW (Stick) Plate 2 9 5**

**Prerequisites:** None      **Corequisites:**None  
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

**WLD 116 SMAW (Stick)**

**Plate/Pipe 1 9 4**

**Prerequisites:** WLD 115      **Corequisites:**None  
This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

**WLD 121 GMAW (MIG)**

**FCAW/Plate 2 6 4**

**Prerequisites:** None      **Corequisites:**None  
This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

**WLD 131 GTAW (TIG) Plate 2 6 4**

**Prerequisites:** None      **Corequisites:**None  
This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and

filler materials.

**WLD 132 GTAW (TIG) Plate/Pipe 1 6 3**

**Prerequisites:** WLD 131      **Corequisites:**None  
This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.

**WLD 141 Symbols &**

**Specifications 2 2 3**

**Prerequisites:** None      **Corequisites:**None  
This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

**WLD 143 Welding Metallurgy 1 2 2**

**Prerequisites:** None      **Corequisites:**None  
This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding.

**WLD 145 Thermoplastic Welding 1 3 2**

**Prerequisites:** None      **Corequisites:**None  
This course introduces the thermoplastic welding processes and materials identification. Topics include filler material selection, identification, joint design, and equipment setup with emphasis on bead types and applications. Upon completion, students should be able to perform fillet and groove welds using thermoplastic materials.

**WLD 151 Fabrication I 2 6 4**

**Prerequisites:** WLD 110, 115, 116, and 131  
**Corequisites:** None  
This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

**WLD 215 SMAW (Stick) Pipe 1 9 4**

**Prerequisites:** WLD 115 or 116  
**Corequisites:** None  
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe

positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.

**WLD 231 GTAW (TIG) Pipe 1 6 3**

Prerequisites: WLD 132 Corequisites: None

This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.

**WLD 251 Fabrication II 1 6 3**

Prerequisites: WLD 151 Corequisites: None

This course covers advanced fabrication skills. Topics include advanced layout and assembly methods with emphasis on the safe and correct use of fabrication tools and equipment. Upon completion, students should be able to fabricate projects from working drawings.

**WLD 261 Certification Practices 1 3 2**

Prerequisites: WLD 115, 121, and 131

Corequisites: None

This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes.

**WLD 265 Automated Welding/  
Cutting 2 6 4**

Prerequisites: WLD 110 and 121

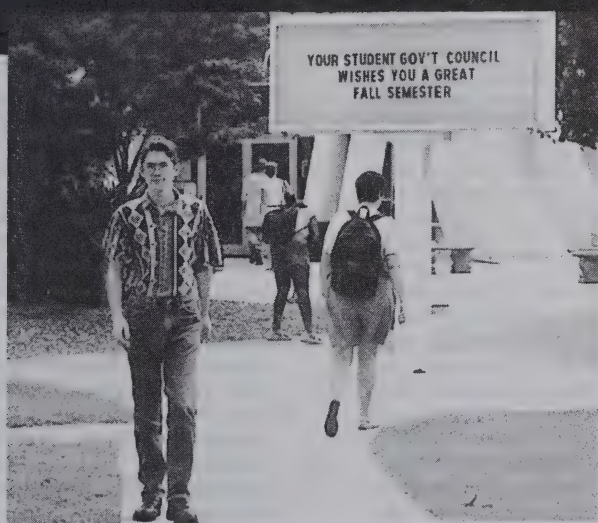
Corequisites: None

This course introduces automated welding equipment and processes. Topics include setup, programming, and operation of automated welding and cutting equipment. Upon completion, students should be able to set up, program, and operate automated welding and cutting equipment.

The \* beside a course number indicates that the course has been approved for the General Education core for transfer through the Comprehensive Articulation Agreement.

The \*\* beside a course number indicates that the course is taught at another community college through a consortium agreement. This course will not be taught at Forsyth Tech.

# Personnel Directory, Campus Maps, & Terms to Know





## Board of Trustees

Chair	<b>Joyce E. Glass</b>
Vice Chair	<b>Dr. Kenneth M. Saddler</b>
Secretary	<b>Dr. Desna L. Wallin</b>

## Appointed by the Governor

<b>Tommy L. Hickman</b>	2001
Vice President/Operations Planning & Quality Assurance, RJR Tobacco Co.	
<b>Robert F. Joyce</b>	2003
Chief Deputy, Sheriff's Department	
<b>Kenneth M. Sadler, D.D.S.</b>	2000
Vice President/Dental Director, Winston-Salem Dental Care	
<b>R. Michael Wells</b>	2002
Attorney, Wells, Jenkins, Lucas & Jenkins, PLLC	

## Appointed by County Commissioners

<b>A. L. "Buddy" Collins</b>	2003
Attorney, Wolfe and Collins, P.A.	
<b>Joan N. Danieley</b>	2000
Vice President of Operations, QualChoice of North Carolina	
<b>Derek S. Duggins</b>	2001
President, D. S. Duggins Welding	
<b>Gordon B. Hughes</b>	2002
AT&T (Retired)	
<b>Andrea Kepple</b>	2000
Winston-Salem/Forsyth County Schools (Retired)	

## Appointed by Winston-Salem/Forsyth County Board of Education

<b>Joyce E. Glass</b>	2000
Registered Nurse, Medical Park Hospital	
<b>Jeffrey R. McFadden</b>	2003
Attorney, Rhodes, Coats & Bennett, L.L.P.	
<b>Dewitt E. Rhoades</b>	2002
President, DERA, Inc.	
<b>William F. Sayers, M.D.</b>	2001
President, Novant Health Physicians	

## Appointed by Student Government Association

<b>Current SGA President</b>	<b>Elected Annually</b>
(Nonvoting Member)	

## Administration

<b>Dr. Desna L. Wallin</b>	
President	
<b>Dr. Susan R. Allred</b>	
Vice President, Institutional Planning and Support Services	
<b>Kenneth W. Jarvis</b>	
Vice President, Business Services	
<b>Dr. Rose H. Johnson</b>	
Vice President, Corporate and Continuing Education	
<b>James A. Rousseau II</b>	
Vice President, Community Relations and Development	
<b>Dr. Felix Andrew Rowe, Jr.</b>	
Vice President, Instructional Services	

## Marvin L. Allen

Associate Vice President and Dean, Business  
Technologies Division

## J. Randel Candelaria

Dean, Learning Resources

## Dr. Sharon B. Covitz

Dean, Resource Development/Executive Director  
of Foundation

## Betty G. Dillard

Dean, Mazie Woodruff Center

## Michael E. Harris

Dean, Job Readiness and Community Services

## Dr. Anne R. Hennis

Dean, Technical Services

## Darrell H. Hill

Dean, Engineering Technologies Division

## Dr. Sarah E. Hutslar

Dean, Marketing and Public Information

## Dr. Susan Q. Phelps

Dean, Curriculum Development

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- Mutton, Albert F., Jr.**  
Life Sciences  
B.S., M.S., East Tennessee State University;  
Registered Cardiopulmonary Technologist
- Myrick, Martha H.**  
Financial Aid Technician, Student Financial  
Services  
A.A.S., Forsyth Technical Community College
- Neas, Jan P.**  
Library Assistant, Allied Health  
A.A.S., Forsyth Technical Community College;  
B.A., Gardner-Webb College
- Nelson, Emma Jean**  
Nursing Assistant Trainer, Corporate and  
Continuing Education  
LPN Certificate, Forsyth Technical Community  
College; B.S.N., Winston-Salem State University
- Newman, Carol B.**  
Developmental Education  
A.B., Meredith College; M.S., Florida State  
University
- Newsome, Judy K.**  
Receptionist/Secretary, Admissions  
A.A.S., Forsyth Technical Community College
- Newsome, Ricky L.**  
Director, Information Systems  
A.A.S., Davidson County Community College;  
B.S., High Point University
- Nichols, Tina H.**  
Admissions Processing Secretary
- O'Neal, Pamela V.**  
Housekeeper, Auxiliary and Physical Plant  
Services
- O'Neal Jr., Willie F.**  
Custodian, Auxiliary and Physical Plant Services
- O'Neal Sr., Willie F.**  
Custodian, Auxiliary and Physical Plant Services
- Owens, Florence A.**  
Associate Degree Nursing  
R.N., B.S.N., Winston-Salem State University
- Palmer-Maness, Patti L.**  
Acting Department Chair, Criminal Justice  
Technology  
B.S., Appalachian State University; M.A., Lenoir-  
Rhyne College
- Parker, Carol A.**  
PC Administrator, Business Technologies  
Diploma, King's Business College; A.A.S.,  
Forsyth Technical Community College; Novell,  
CNE,CNI,CNA, Certification; Microsoft  
Certification, MCT, MCP
- Pearce, Elsie E.**  
Supervisor, Microcomputer Lab  
A.A.S., Forsyth Technical Community College;  
B.M., East Carolina University; Microsoft  
Certified Professional

- Pennell, Stephen J.**  
Maintenance Specialist - HVAC Electrical Technician
- Perez, Rafael**  
Coordinator, Spanish Speaking Students, Corporate and Continuing Education  
*B.A., University of Puerto Rico; M.Ed., Saint Thomas University*
- Perkins, Jean R.**  
Director, External Relations/Alumni  
*B.A., Winston-Salem State University; Certificate in Multi-Media Communications*
- Perry, Nell V.**  
Education Technician, Downtown Center  
*A.A.S., Blue Ridge Community College*
- Perryman, Malia E.**  
Processing Secretary, Admissions
- Petree, Robin N.**  
Department Chair, Machining Technology  
Vocational Diploma, *A.A.S., Forsyth Technical Institute*
- Phelps, Susan Q.**  
Dean, Curriculum Development  
*B.A., University of South Carolina; M.A., Appalachian State University; Ph.D., University of North Carolina at Greensboro; National Certified Counselor*
- Pinnix, R. Allen**  
Department Chair, Social Sciences  
*B.A., M.A., University of North Carolina at Greensboro*
- Polanis, Marcia E.**  
Office Systems Technology  
*A.A.S., Forsyth Technical Community College; B.A., Indiana University of Pennsylvania*
- Potter, Linda S.**  
Associate Degree Nursing  
*R.N., B.S.N., Lenoir-Rhyne College; Certified ANA Medical-Surgical Nurse; M.S.N., University of North Carolina at Greensboro*
- Powell, Norma J.**  
Housekeeper, Auxiliary and Physical Plant Services
- Pritchard, Bernyce L.**  
Practical Nursing  
*R.N., Riverside School of Nursing; B.A., Salem College; B.S.N., Winston-Salem State University*
- Queen, Garland W.**  
Electronics Engineering Technology  
*B.S.E.E., University of North Carolina at Charlotte; M.S.E.E., Clemson University*
- Rajacich, Carolyn T.**  
Assistant Dean, Health Technologies/Department Chair, Practical Nursing  
*R.N., Rowan Memorial Hospital; B.S.N., Winston-Salem State University*
- Randall, Williams D.**  
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*B.S., Indiana State University; M.A., Appalachian State University; Ed.D., University of North Carolina at Greensboro*
- Ray, Deana K.**  
Staff Assistant, Grady P. Swisher Center  
*A.A.S., Amarillo Community College*
- Redfield, Kristin L.**  
English and Communications  
*B.A., M.A., University of North Carolina at Greensboro*
- Reece, Ellen F.**  
Department Chair, Manufacturing Engineering Technology  
*A.A.S., Surry Community College; B.S., M.S., North Carolina State University*
- Reeves, Derrick A.**  
Welding Technology  
Vocational Diploma, *Forsyth Technical Institute; C.W.I.; C.W.E.*
- Richardson, Colleen R.**  
Counselor  
*B.A., Appalachian State University; M.Ed., Wake Forest University; National Certified Counselor*
- Richardson, Margaret S.**  
Secretary, External Relations/Alumni  
*A.A.S., Forsyth Technical Community College*
- Richardson, Roger A.**  
Horticulture Technology  
*A.A.S., Forsyth Technical Community College; B.A., Syracuse University; M.A., Wake Forest University*
- Rinehardt, Sybil D.**  
Mathematics  
*B.A., M.A., University of North Carolina at Charlotte; Ed.S., Appalachian State University*
- Ritchie Jr., Clyde F.**  
Radiography  
*A.R.R.T.(R), North Carolina Memorial Hospital, University of North Carolina at Chapel Hill; B.S., Alderson-Broadus College*
- Robbins, Frederick A.**  
Manufacturing Engineering Technology  
Vocational Diploma, *A.A.S., Forsyth Technical Institute*
- Roberson, Delores**  
Housekeeper, Auxiliary and Physical Plant Services
- Robertson, Randall A.**  
Network Manager, Information Systems  
*A.A.S., Forsyth Technical Community College*
- Rockson, Annette B.**  
Housekeeper, Auxiliary and Physical Plant Services
- Rogers, Jerry D.**  
Director, Auxiliary and Physical Plant Services  
*National Association of College Stores, Management Survey Certificate*



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Department Chair, Automation/Robotics  
Technology  
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Vice President, Community Relations and  
Development  
B.S., Knoxville College; M.S., North Carolina  
A & T State University; Ed.S., Appalachian State  
University

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Associate Degree Nursing, Health Technologies  
B.S.N., Florida State University

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Maintenance Specialist - Electrical Technician,  
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**Salandy, Andy B.**

Life Sciences  
B.S., M.S., Appalachian State University

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Developmental Education  
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Assistant Dean, Health Technologies/Coordinator,  
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B.A., University of North Carolina at Chapel Hill;  
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Accounting Technician/Payables, Financial  
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Department Chair, Medium/Heavy Duty Vehicles  
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Cummins Factory, Detroit Diesel, Ford Motor  
Company

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Physical Sciences  
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and State University

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**Shepherd, Geraldine P.**

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Basic Law Enforcement Technology Certificate

**Shepherd, J. Bruce**

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Department Chair, Respiratory Care  
RRT, RPFT, RCPT, Specialty in  
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Secretary, Fire Service and Stokes County  
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Technologies  
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Electrical Installation and Carpentry Vocational  
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Housekeeper, Auxiliary and Physical Plant  
Services

**Spurgeon, Thelma W.**

Department Chair, Office Systems Technology  
B.A., Bennett College; M.B.E., University of  
North Carolina at Greensboro

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Processing Secretary, Admissions

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English and Communications  
B.A., University of Pittsburgh-Bradford; M.A.,  
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Housekeeper, Auxiliary and Physical Plant  
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Automotive Systems Technology  
A.A.S., Forsyth Technical Community College;  
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G.M. Training Center; Ford Motor Company  
Training; Mitchell On-Demand Systems, Mitchell  
Driveability Systems

**Stone IV, Charles A.**

Physical Sciences  
B.S., North Carolina State University; M.S.,  
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California at Los Angeles

**Stovall, Pamela H.**

Network Administration and Support, Business  
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Technology, Drafting and Design Concentration  
Vocational Diploma, Forsyth Technical Institute;  
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Staff Associate, Business Services  
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**Swain, Michael E.**

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**Swenson, Edward J.**

Mathematics  
B.S. United States Military Academy; M.A.,  
University of Washington; M.S., North Carolina A  
& T State University

**Tarr, Jeanette L.**

Life Sciences

*B.S., M.A., Ed.S., Appalachian State University*

**Tatum, Bettie B.**

Facilities Operations/ Telephone Technician,  
Auxiliary and Physical Plant Services

**Taylor-Stanley, Shannon**

Career Development Instructor, Corporate and  
Continuing Education

*A.A.S., Surry Community College; B.S., Gardner-  
Webb University; M.B.A., Gardner-Webb  
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Certificate*

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Department Chair, Physical Education

*B.S., Grand Valley State College; M.A., Western  
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**Thomas, Marie H.**

Associate Degree Nursing

*B.S.N., Vanderbilt University; M.S.N., University  
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**Tilley, III, John W.**

Public Safety Officer

**Tinnes, Thomas M.**

Department Chair, Air Conditioning, Heating, and  
Refrigeration Technology

*Vocational Diploma, USAF Electronics School;  
N.C. Refrigerator Contractor*

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Secretary, Womens Resource Center

*A.A., Sullins College*

**Turner, Douglas M.**

Associate Degree Nursing

*A.D.N., Wytheville Community College; B.S.N.,  
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M.S.N., University of Virginia; M.S.N.A.  
University of North Carolina at Greensboro;  
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School of Medicine; Certified Registered Nurse  
Anesthetist - American Association of Nurse  
Anesthetists*

**Turner, Martha A.**

Housekeeper, Auxiliary and Physical Plant  
Services

**Tuttle, Jacqueline M.**

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*B.S., High Point College*

**Tuttle, Jeffrey L.**

Department Chair, Banking and Finance

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Assistant to the President for Special Projects

*B.S., M.S., East Carolina University; Ph.D.,  
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**Tyndall, Robert A.**

Physical Sciences

*B.S., M.A., East Carolina University*

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Coordinator, Adult Basic Skills/Chief GED

Examiner, Corporate and Continuing Education  
*B.S., Saint John's University; M.S. Rutgers, The  
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**VanderKlok, Rebecca M.**

Administrative Assistant to the President

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*B.S., Western Carolina University; B.S.N.,  
University of Alabama*

**Vernon, Carole S.**

Human Resources Technician

*A.A.S., Forsyth Technical Community College;  
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**Vestal, Sherry N.**

Supervisor, Faculty/Staff Service Center

**Vincent, Sandra L.**

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**Waddell, Edwin B.**

Supervisor, Student Activities Division

*B.A., Mars Hill College; M.Div., Southeastern  
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**Wallin, Desna L.**

President

*B.A., Brigham Young University; M.A., Eastern  
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**Warner, Susan L.**

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Programs, Corporate and Continuing Education

**Watts, Ann B.**

Early Childhood Associate

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**Weaver, Cindy D.**

Counselor Technician, Counselor and Retention  
Services

*A.A.S., Forsyth Technical Institute; Certified  
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**Weaver, Larry V.**

Dean, Human Resources/Evening Programs

*A.A.S., Rowan Technical Institute; A.A.S., Forsyth  
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Service Center Specialist, Faculty/Staff Service  
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**Webb, Minnie E.**

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**Wheat, William H.**

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University

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A.A.S., Forsyth Technical Community College;  
Microsoft Certified Professional

**Wilder, William B.**

Department Chair, Automotive Systems  
Technology  
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A.A.S., Guilford Technical Community College;  
ASE Certified; Specialist Certificate in Electronic  
Engine Controls

**Wiles, Jerri F.**

Information Systems Technology  
A.A.S., Forsyth Technical Community College;  
B.S., High Point University; M.B.A., Ed.S.,  
Appalachian State University

**Wilkins, Dwayne R.**

Maintenance Mechanic - Painter

**Williams, Ann M.**

Department Chair, Mathematics  
B.A., St. Andrews College; M.A., University of  
North Carolina at Chapel Hill

**Williams, Frances W.**

Dean, Health and Emergency Service, Corporate  
and Continuing Education  
R.N., Rex Hospital School of Nursing; B.S., Saint  
Joseph's College

**Williams, Leola B.**

Housekeeper Student Development Services

**Williams, T. Michelle**

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**Williams, Tracey M.**

Secretary, EMS/Law Enforcement, Corporate and  
Continuing Education  
A.A.S., Forsyth Technical Community College

**Wimbish, Janice**

Practical Nursing  
B.S.N., Clemson University

**Wood, E. Lorraine**

Coordinator, Admissions  
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**Wood, Nelda M.**

Evening Switchboard Operator

**Wooten, Robin L.**

Officer, Public Safety  
A.A.S. in Criminal Justice, Forsyth Technical  
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Technology Certificate, Davidson County  
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University; M.S.N., University of North Carolina  
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Social Sciences  
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B.A., East Carolina University; M.S.,  
Appalachian State University

**Young, Phygenia F.**

Early Childhood Associate  
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**Yurko, Linda W.**

Radiography  
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Technology; A.R.R.T. (Me) (R); B.S., Greensboro  
College

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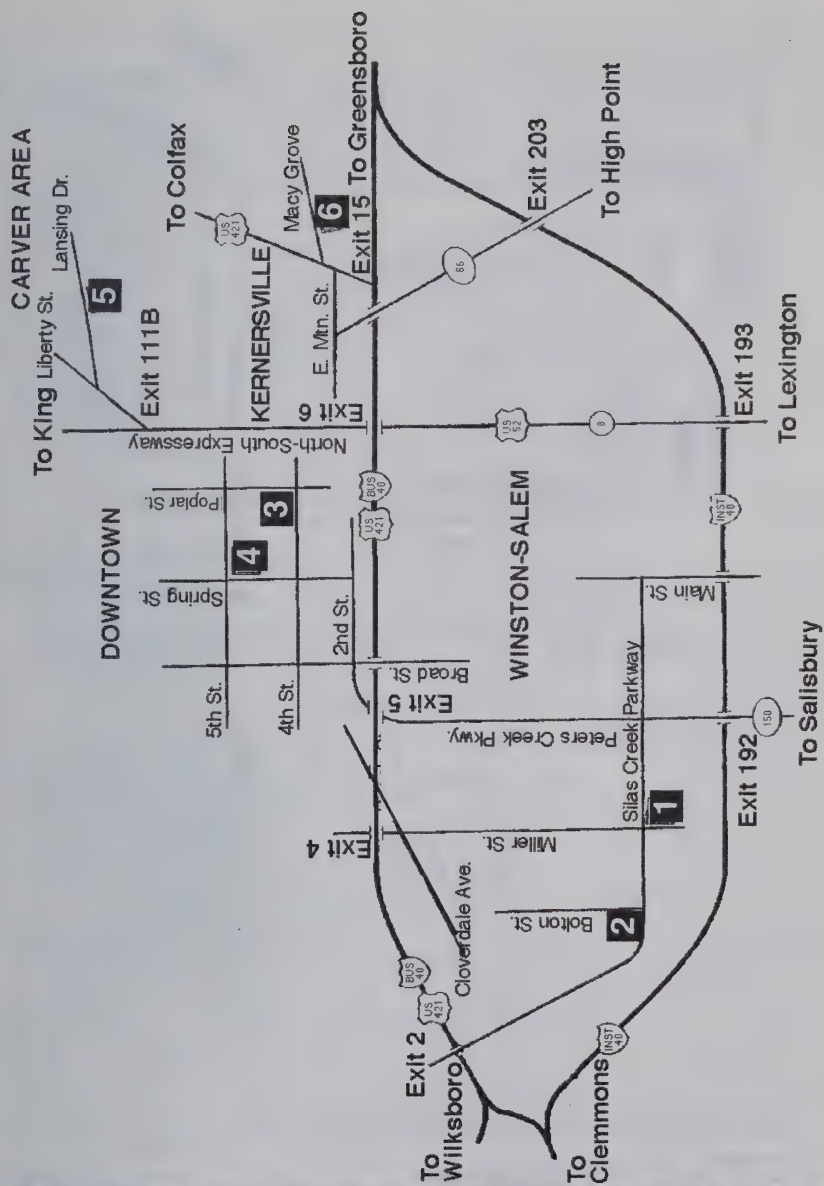
Forsyth Technical Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; Telephone number 404-679-4501) to award Associate in Applied Science, Associate in Art, and Associate in Science degrees.

*An Equal Opportunity Institution*

Forsyth Technical  
Community College  
has 6 locations  
in Forsyth County.

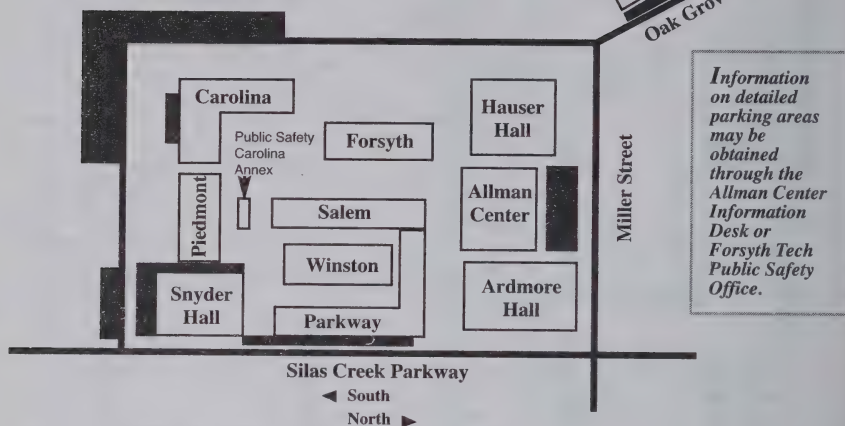
1. Main Campus
2. West Campus
3. Downtown  
Fourth Street  
Center
4. Downtown  
Fifth Street  
Library Center
5. Woodruff Center
6. Swisher Center

The Stokes County  
Office is located in  
Walnut Cove at the  
corner of 9th Street  
and Main Street.



# Main Campus

2100 Silas Creek Parkway  
(336) 723-0371



## Allman Center

Admissions  
Alumni/External Relations  
Cashiers Office  
Classrooms  
Community Relations and Development  
Counseling Center  
Dean, Arts and Sciences  
Dean, Curriculum Development  
Employment Assistance  
Financial Aid  
Human Resources  
Information Desk  
President's Office  
Records  
Testing Center

## Ardmore Hall

Auditorium A & B  
Classrooms  
Learning Center  
Library

## Carolina Annex

Public Safety

## Carolina Building

Classrooms/Workshops  
Environmental Services

## Forsyth Building

Classrooms/Workshops

## Greene Hall

Dean, Health Technologies  
Classrooms/Labs

## Hauser Hall

Cafeteria  
Classrooms/Labs  
Dean, Business Technologies  
Women's Resource Center

## Parkway Building

Classrooms  
Developmental Education Department

## Piedmont Building

Classrooms/Workshops

## Salem Building

Classrooms/Workshops

## Snyder Hall

Bookstore  
Classrooms  
Faculty/Staff Service Center  
Marketing and Public Information  
Student Activities/SGC Office

## Winston Building

Classrooms/Workshops  
Dean, Engineering Technologies

## Parking

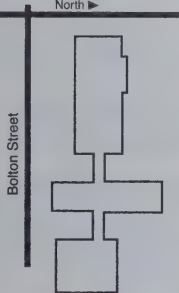
■ Visitor parking is available in front of the Allman Center for approximately 40 cars. Additional parking is available at Greene Hall or any of the black areas



## West Campus

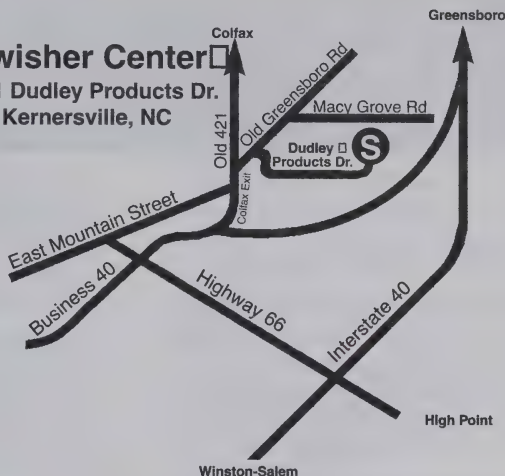
1300 Bolton Street

Silas Creek Parkway  
 ◀ South  
 North ▶



## Swisher Center

1251 Dudley Products Dr.  
 Kernersville, NC



## Downtown Fifth Street

### Library Center

(Forsyth County Public Library)

660 West Fifth Street

Winston-Salem, NC

and

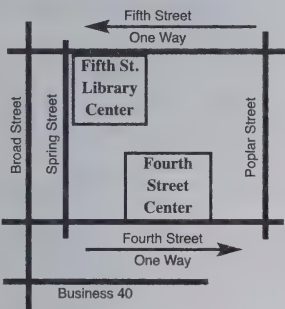
### Downtown

### Fourth Street Center

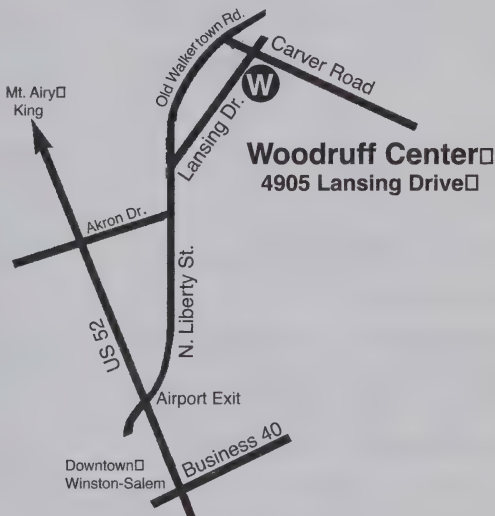
(Chamber of Commerce Building)

601 West Fourth Street

Winston-Salem, NC



Mt. Airy  
 King



## Woodruff Center

4905 Lansing Drive

## Stokes County Office

corner of 9th and Main Street

Walnut Cove, NC



# Terms to Know

*To help you with words used by Forsyth Tech faculty and staff, here is a list of frequently used terms and their definitions.*

**Academic standing:** Entering students must earn a grade point average (GPA) of 2.0 by the end of their first semester and maintain a GPA of 2.0 thereafter.

**Accreditation:** Various professional agencies appoint teams of evaluators who periodically study Forsyth Tech's programs and services to ensure that they meet standards of quality and are relevant to the college's purpose.

**Adult High School:** A program that allows adults to complete high school courses and credits for an Adult High School diploma.

**Advisor:** A person who approves the selection of courses for your chosen field of study and is usually a faculty member or counselor in the Counseling Center.

**Associate in Applied Science:** A two-year technical degree that prepares you for the job market.

**Associate in Arts:** A two-year college transfer program that concentrates on humanities and social sciences for those planning to continue in a bachelor's degree program in a senior college.

**Associate in Science:** A two-year college transfer program that concentrates on mathematics and biological or physical sciences for those planning to continue in a bachelor's degree program in a senior college.

**Audit:** A course for which you pay tuition and fees but do not receive credit. An Audit Request Form is available in the Counseling Center or from the appropriate division dean.

**Catalog:** The publication you can get in the Admission's Office that contains almost everything you need to know about FTCC and its programs.

**Certificate:** A program of study generally requiring one year or less of course work.

**Contact hours:** The actual number of hours in class per week, per course.

**Corporate and Continuing Education:** This division provides noncredit courses for citizens who are 18 years old or older. The opportunities are based on individual need and previous educational achievement.

**Credit hours:** Every class is worth a value called a credit hour. Every degree, diploma, and certificate program requires you to take a certain number of credit hours.

**Counselor:** A person who provides you with personal, academic, vocational, and career counseling.

**Cumulative grade point average (GPA):** The average of your grades for all classes taken at FTCC. It is calculated by adding all earned quality points and dividing by the number of credit hours taken.

**Curriculum:** The program of courses required to receive a degree, diploma, or certificate in your chosen area of study.

**Developmental Education:** This program offers a series of courses for preparation, remediation, and academic guidance if you do not meet the entrance requirements for the curriculum of your choice.

**Diploma:** Curriculums that usually take 2 semesters to complete. Courses are not designed to transfer to a 4-year school.

**Division:** An academic area within the college. FTCC has five: Arts and Sciences, Business Technologies, Corporate and Continuing Education, Engineering Technologies, and Health Technologies.

**Drop/Add:** When you adjust your schedule by dropping courses you registered for but no longer wish to take, and/or adding other courses. The Drop/Add period is limited and is indicated on the college calendar.

**Electives/Unrestricted electives:** A course which is not specifically named in your curriculum, but is required to graduate. Check with your academic advisor before choosing an elective.

**Financial aid:** Grants (monies given to students through the federal and state government), scholarships, and student loans are available to qualified students to help you meet your educational expenses.

**Full-time student:** A student who is taking a least 12 credit hours. A student who is registered for 11 credit hours or fewer in one semester is a part-time student.

**GED:** Persons who have not completed high school may choose to take a series of tests that correspond to most high school curriculums to determine if they qualify for a high school equivalency diploma.

**Independent study:** A credit course, allowed only in special circumstances, in which you work individually with a faculty member.

**Plagiarize:** Using ideas or words of another as your own without crediting the source. Plagiarism is a form of cheating.

**Practicum:** A course that offers hands-on experience in the workplace.

**Prerequisites:** Preliminary skills, knowledge, or other courses which are required before your enrollment in a particular course. Prerequisites are listed by course and course description in the catalog. Descriptions are alphabetized by course prefix.

**Probation:** You are placed on academic probation when your GPA falls below 2.0.

**Proficiency test:** You may, under certain conditions, take an exam and receive credit for a course without having taken the course. You will not receive a grade, just the credit hours.

**SGA - Student Government Association:** You can get involved in SGA activities by contacting the student activities facilitator in Snyder Hall.

**Special credit student:** A student who is taking one or more curriculum credit courses, but who is not enrolled in a specific curriculum.

**Student activity fee:** The fee you pay every semester that covers activities, (cookouts, dances, etc.) part of graduation expenses, and the student newspaper.

**Transcript:** A printed record of every course you've taken at FTCC and the grades you've received. An official transcript is stamped with the seal of the college. Transcripts are obtained, at a cost of \$2.00, from the Records Office.

**Workstudy:** A federally supported program through which students, primarily from low-income families, are given preference for part-time employment on campus.



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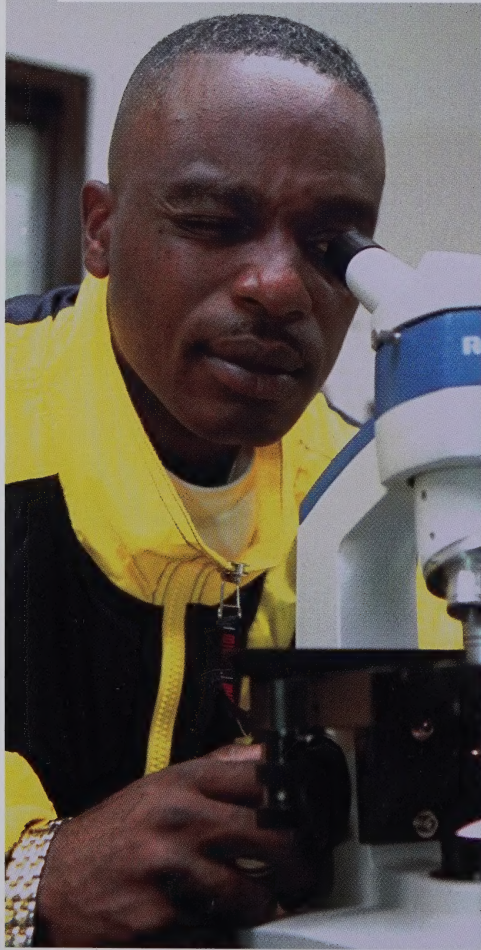
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